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## COUNTRY REPORT

### DELIVERABLE 2.1

**D3, D6**

**HopaSus HOP nr. 101049653**

**ROMANIA**

**JUNE 2023**



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 Ref. Ares(2022)8460887 - 06/12/2022

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## ***Introduction***

*This Country report contents the main information about the issue of the project from the first google survey, a quiz for physical education and sport teachers and trainers and their challenges in the educational process during the pandemic Covid 19 lock- down period, up until present moment when we are in the WP 2 development – producing educational materials- toolkit for using sport video gaming in education, HopaSus good practice guide book and video tutorials.*

## 1. Google survey

([https://docs.google.com/forms/d/1swO5u0qu53SrRd0AAJXJKa1ALhb\\_buSeYej17SxRFE/edit](https://docs.google.com/forms/d/1swO5u0qu53SrRd0AAJXJKa1ALhb_buSeYej17SxRFE/edit))



We started our work with a google survey paper work launched in January 2022, a survey that is addressed to teachers working in the field of physical education and sport, using the questionnaire method with the onset of the pandemic situation, in an attempt to understand and evaluate the situation they face in teaching the subject of physical education and sport at secondary school through online access, and how to adapt to the new technologies and challenges posed by lock down.

The 15 questions were of interest to:

- What were the challenges faced by teachers during the pandemic lock down, working with children, young people, students.
- What virtual resources they used
- The extent to which they felt that video gaming could be used as an educational resource, as a method of equating practical activities.

Video gaming means a video game that simulates playing sports, such as FIFA, Pro Evolution Soccer and Madden NFL, Football Manager, Out of the Park Baseball, Need for Speed, Arch Rivals, Punch-Out, Just Dance etc.

The answers given by teachers have helped us in our approach to attract children and young people to play sports through games and applications they already know and to open new horizons for those working in the educational sector, and to lay the foundations for a European project to digitize educational processes in the field.

The main keywords that we use were: sport video gaming, physical education and sport, gymnasium, adaptation, educational resource, digitalization.

During the COVID-19 challenge, the sport sector was heavily affected. The organization of events was banned, young people could not train effectively; all forms of organized sport were banned.

Constant need to increase investment in everything related to protective measures (masks, gloves, systematic disinfection of facilities); continued online training courses for all students - the theory was easily conveyed by teachers, but the practical part of the PE and sport courses could not be implemented due to lack of digital infrastructure. It was also very difficult for many teachers to teach sport through online platforms, zoom

sessions etc. As a result, during this period, many students and the general population tended to be less physically active, spend more time in front of the screen, have irregular sleep, as well as poorer diet, leading to weight gain and loss of fitness.

In this context where most countries have been closed and schools have been closed, many have turned to video games as a way to learn, play, exercise or simply escape the situation. In these challenging times, there is a need to provide families with educational resources, help people connect and support governments globally with Covid-19 guidance.

In this application we use the term sports video game as a game that simulates playing a sport. Most sports have been recreated using a game, including team sports, athletics, extreme sports and combat sports. Some games focus on the actual playing of the sport (such as FIFA, Pro Evolution Soccer and Madden NFL), while others focus on strategy and sport management (such as Football Manager and Out of the Park Baseball). Some, such as Need for Speed, Arch Rivals and Punch-Out, satirize sports for comic effect. This genre has been popular throughout the history of video games and is as competitive as real-world sports. A number of game series feature the names and characteristics of real teams and players and are updated annually to reflect changes in the real world. The sports genre is one of the oldest genres in gaming history.

This questionnaire is the basis for the development of Erasmus Sport Plus HopaSus project, which is concerned with sports video games and not Esports. In today's digital context, the HOPASUS project focuses on the use of commercial video games that offer sophisticated and engaging simulations of popular team sports and individual or pair activities.

During the project it will promote how such games provide simulated experiences that can enhance students' motivation, confidence, understanding and performance in sporting activities, but also how they can be used as an assessment or grading scale in online situations.

The HOPASUS project is addressed to sport teachers, youth workers, representatives of sport universities, schools, ministries of youth, education, digitalization, interested in the use of video games in their lessons/activities/public policies.

### *Objectives and purpose:*

The 15 questionnaire questions of this paper are addressed to physical education and sport teachers, coaches, physical trainers and people working in the field of direct movement.

They aimed at the following:

- Awareness and evaluation of the degree of impairment of educational quality in physical education and sport lessons during the pandemic period.

- To discover the difficulties teachers faced in this endeavor

- To find out the degree of involvement and knowledge of physical education and sport teachers on the digital education environment, especially on video games.

- The value and appreciation of video games by teachers as an educational or evaluation and grading tool in the physical education and sport lesson.

- Building viable goals and targets that form the basis of a large-scale project to adapt the secondary school curriculum with a qualitative addition in the future in digitization and implementation of new guidelines and best practices in this approach

- Degree of knowledge, involvement and difficulty in accessing online resources by teachers involved in the study

- Capacity to adapt and assume new educational paradigms adapted to the future

- Criteria used by teachers in the choice of video games and their use

- The interest and openness of the teachers involved in the study in the knowledge, development and application of new digital methods in the physical education and sport lesson.

### *Methods:*

In order to confirm the existing empirical knowledge on the involvement of video and gaming media in physical education, we conducted a statistical study using the google survey platform. A total of 48 physical education and sport teachers participated in the study, mainly from the Bucharest - Ilfov area. We mention that the area is among the most economically developed and with a much higher access to IT resources than the national average, including data transfer via the Internet, access to hardware and software resources, access to information. For these reasons

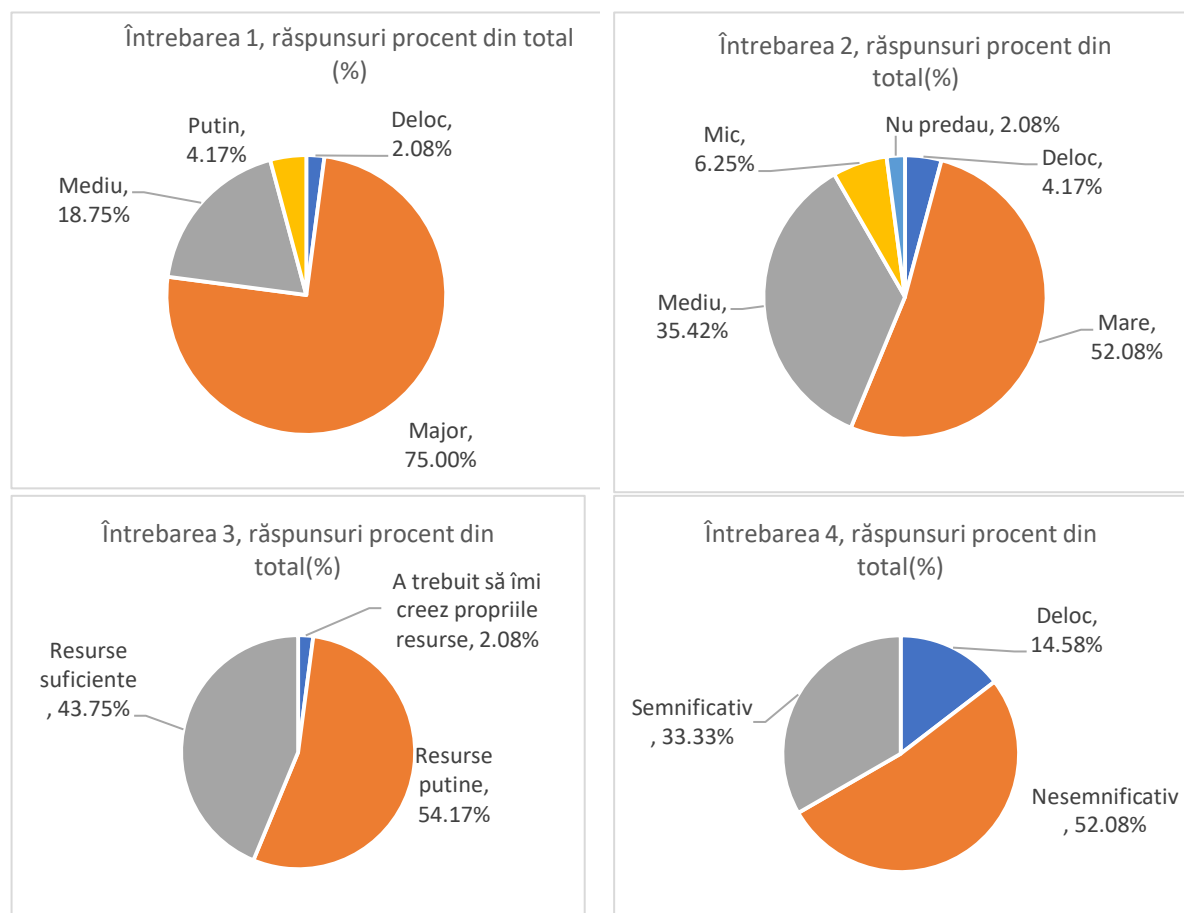
we consider that the study does not meet the criteria of statistical representativeness at national level, but it represents a starting point for more complex statistical studies both in terms of addressability and population stratification. The study comprised 15 general questions, which are reproduced in Annex 1 to this material.

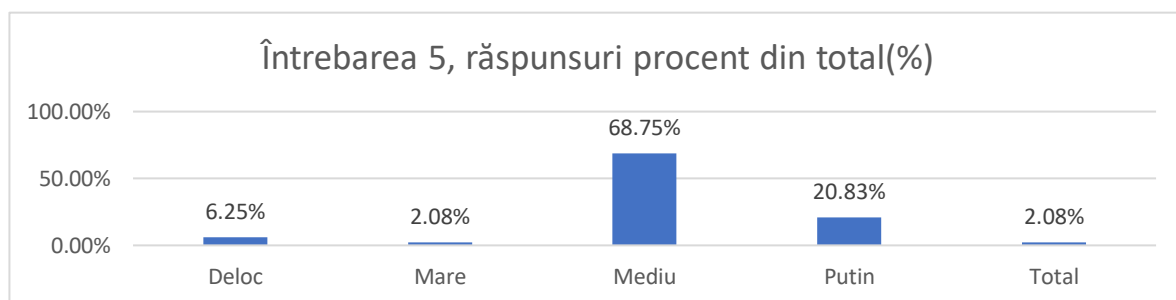
The first 5 questions aimed to measure the perception of how the COVID-19 pandemic has affected the development of physical education and sport activities and the ability to identify and use video and gaming resources to compensate for the lack of access to special spaces for such activities.

The next 3 questions targeted the assessment of knowledge and use of video and gaming resources, while the last 7 questions aimed to measure perceptions of the usefulness and availability of the use of these resources in teaching knowledge and assessing learners based on these resources.

### *Results:*

The graphical representation of the responses for each question is reproduced in the image below.



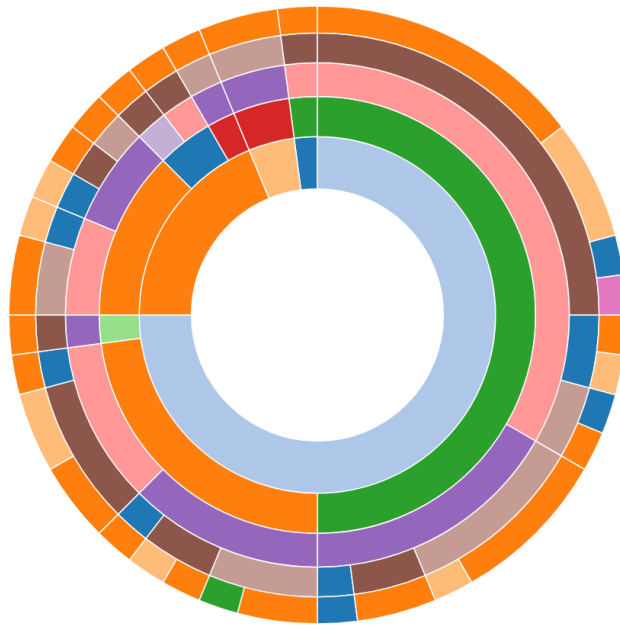


From this set of initial questions, what stands out is the generally negative perception of the impact that the COVID-19 pandemic has had, and the relative lack of alternative resources to carry out the teaching of physical education and sport activities.

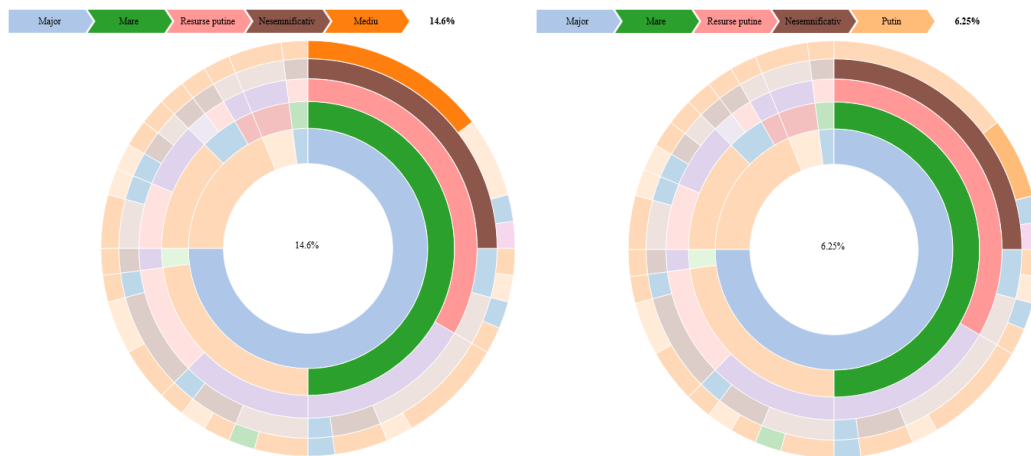
Given that question 3, on finding appropriate teaching resources, in order to better interpret the data resulting from the survey, we have processed the information for the respondents, according to their individual responses, into a sunburst chart to provide a more detailed visual representation than the graphs for the individual questions. The statistical exploration of the data aimed, in the absence of information on respondents such as age, IT knowledge, etc., to uncover possible trends in the data, as well as to further segment the respondent population.

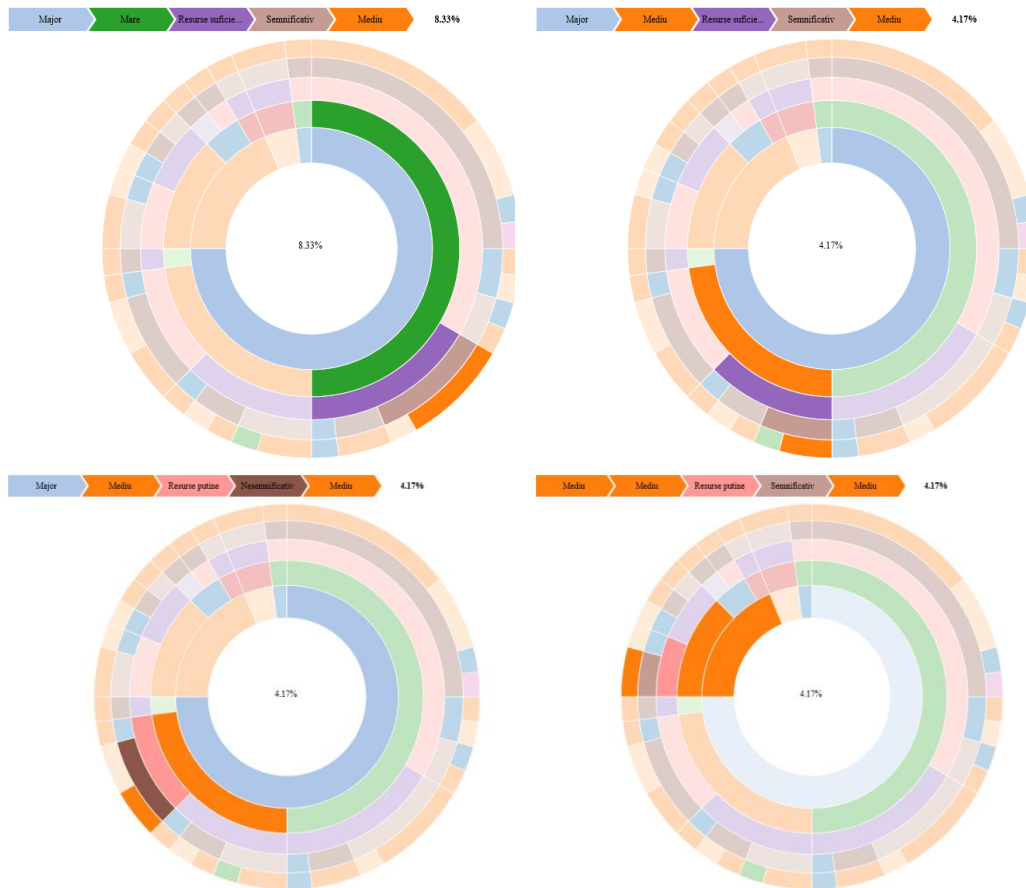


## Exploratory sunburst plot of data for questions 1-5



Six major areas stand out from this diagram, which are shown according to the answers to the questions in the following images and which concentrate a significant part of the answers in the first phase of the analysis. Basically, these answers explain 41.69% of the total responses of the study.



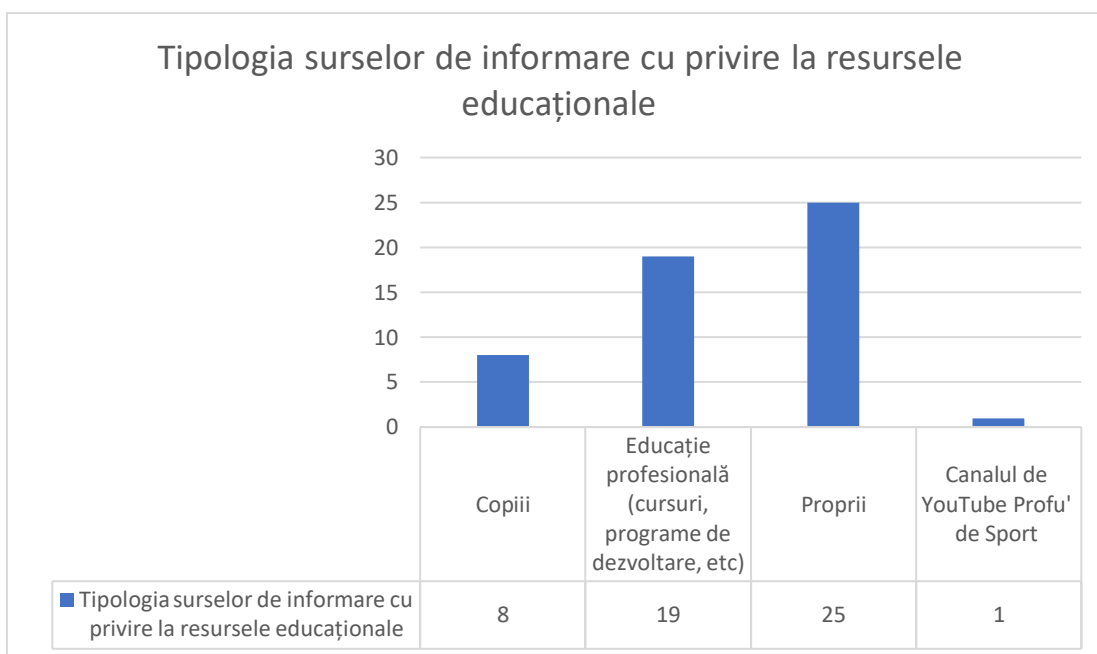


It is noted that the most common element for the six significant areas is the medium level use of educational resources in the video/gaming sphere.

The graphical representations as well as the sunburst diagram could only ensure the processing of data that were standardized, while question 6 that should have recorded the exact names of the educational tools used as well as some control elements of the statistical survey did not provide sufficient and relevant information. In the case of this question, out of 48 respondents to the survey only 32 gave an answer, of which only 9 were specific answers that precisely indicated an educational tool in the IT/video sphere, the difference of 23 being general "yes/no" answers or indicating only the generic names of video streaming platforms. In order to obtain relevant information and to be able to apply statistical information control tools (elimination of uncorrelated and/or outlier responses), we consider that in a future stage of the study it is necessary to make this question a closed question, possibly doubled by an open question.

From the answers given by the respondents to the next question, i.e. question number 7, it was concluded that regardless of the ability to mention an educational tool, the typology of information sources falls into several patterns, the most important of which are shown in the diagram below. Note that the data were processed by counting each source, including respondents

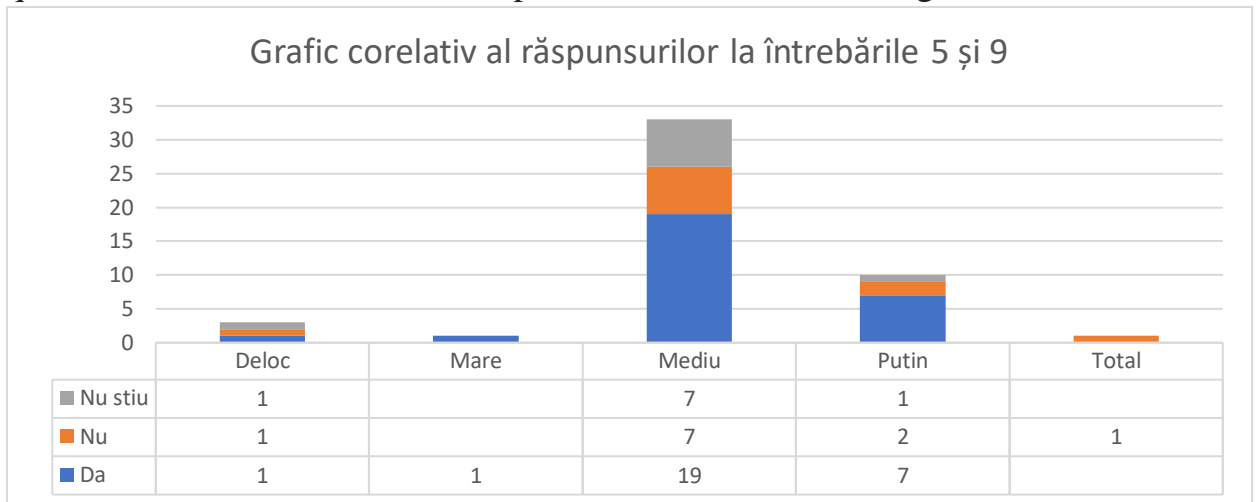
who gave multiple answers. The relevant criterion by which the applications suggested by the sources of information on available educational resources were used was their confirmation by accessing the information provided by the various search engines (62% of respondents chose the respective educational resources according to the confirmations of their usefulness and quality present on the various websites).



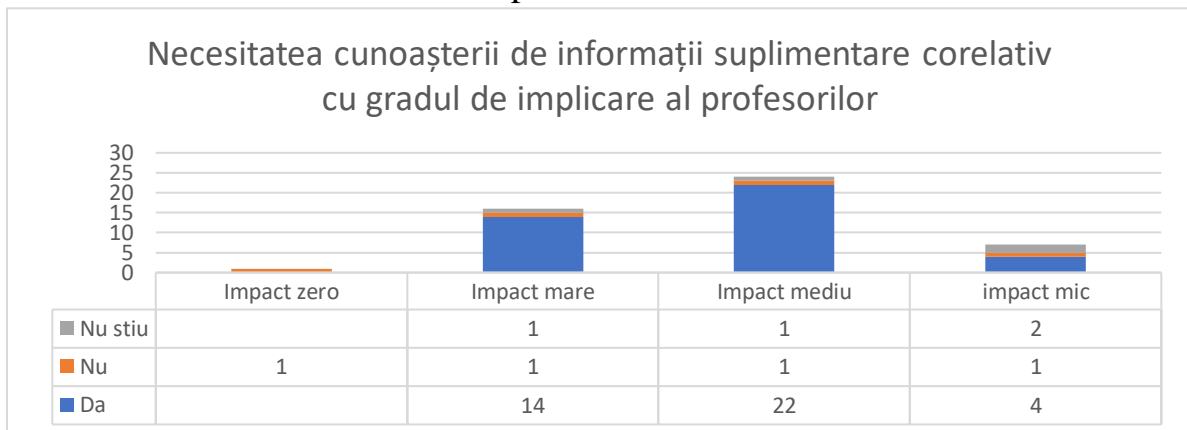
Children are the product of the educational process and the central element of importance and addressability in this context of capacity building of professional development resources.

In the study we were particularly interested in the possibilities of developing video/gaming educational tools, which is why in question 9 we tested the perception of how successful such tools could be in the delivery of physical education and sport lessons. From the responses to the survey what we obtained relevantly was that the majority of those who have used video/gaming educational resources to an average or even little level, think that they can be successful if used. A correlating graph for the answers to

questions 1 and 5 is provided in the diagram below:



However, the majority of respondents to the survey felt that additional information was needed and a significant proportion (83.33%) were interested in it, even if not all of them perceived a high or medium impact that such tools could have. Even for those who perceive little impact of video/gaming educational tools there is some interest in learning more information. The chart below shows the correlation between the need for additional information and the perceived level of teacher involvement:



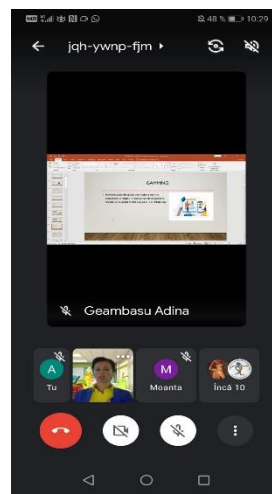
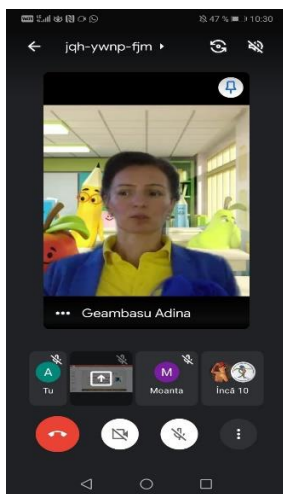
At the same time, interest is also shown by the willingness to participate in seminars, over 80% of those who answered this question expressed their willingness, but also by the need for more effective means of information in the form of brochures and workshops, 76% of those who responded felt that such a means of information was necessary.

The study is far from complete and we will improve it and use it as a launching pad for workshop ideas with teachers, children are the main target of the implementation of the final results of this project.

**2. International Congress of Education, Health and Human  
Movement (ICEHHM)  
15-18 June 2022**

**NATIONAL UNIVERSITY OF PHYSICAL EDUCATION AND  
SPORTS FROM BUCHAREST ROMANIA  
<https://infocongress.unefs.ro/>**

**WORKSHOP  
HOPUP FOR SporT**



In the dissemination plan of the project for the visibility, we implemented during the International Congress of Education, Health and Human Movement (ICEHHM) on 15-18 June 2022, a hybrid workshop both physically and online on the Congress platform, a PPT workshop entitled HopUp for SporT which had as its theme the basic idea from which the Erasmus project started with the creation of the animation HopaSus for health in the office. We mention that the participants were 23 physical and 29 online.

Below are the details of the basic ideas presented to the audience and the disseminated project infos:

“With the advancement of technology, physical labor is becoming more and more replaced by robots and artificial intelligence, and human labor is becoming static and in turn dependent on computerized elements - it is a long-standing fact.

With the pandemic and online schooling, the children's world has also become static and linked to information in the virtual space.

If the number of people with spinal and vision problems has increased considerably in recent years, in the last year the ranks have been consistently thickened by children in full development and growth.

Thus, there are major problems with deficiencies of the spine, chest, shoulder blades, visual analyzer (due to prolonged exposure to the blue

screen) and hearing (due to headphones), which will lead in time to complications and exacerbations of long-term conditions; they will affect both the quality of life of future adults but especially will have a huge social impact in terms of health care and labor productivity, creative power and concentration of the adults involved. Then further the genetic baggage brought by them, their descendants and so on.

Gloomily assuming that this type of activity will take longer than we would like, especially for our children, new and new innovations and ideas for access and mobilization of natural resources for harmonious growth and development are required - movement in all its aspects.

We people in the field of movement are looking for more and more attractive ways and resources to stimulate the practice of movement in all its forms, from the simplest to mass and performance sports.

However, global restrictions require us to adapt in this way in a virtual way.

Starting with an idea for adults who work 8 hours or more on a computer chair in a corporation, we created HopaSus.

A neutral asexual character, cosmopolitan, slightly naive but naughty enough, neither too fat nor too thin, neither too short nor too tall, neither young nor old, in colors neutral to the human eye, which appears every hour on the computer screen in a non-invasive manner, on a background of relaxing or dynamic music, and invites all employees to participate with him in a short relaxation session near the office.

This TOGETHER also has an essential role, even if it is at a distance.

HopaSus (HopUp) is the friend of health and good mood but especially the promoter of new and instructive other activities that he proposes every week or day, always reinventing himself so that the routine does not settle and people are always curious what he has prepared.

He can also be a very good counselor or evaluator of physical condition or body comfort, thus becoming a direct channel of communication and correct counseling between the movement educator and practitioner until redirection to specialized institutions (depending on the complexity or involvement in the media channels of the developed software).

In the case of children, it would be a very good educational source in addition to the movement factor involved.

The fact that HopaSus is a living project that can be reinvented weekly or daily, opens up many educational values, which each school counselor can manage according to needs and requirements in several directions.

*I kindly invite you to stay curious and discover into your own flash and body the yellow areas represented in the following images, but especially giving yourself the chance and time to discover the great difference that will appears in your mind and body by working with metaphor.*

*Be curious to discover HopaSus in the followings:*

 [Animatie Hopasus Adina.mp4](#)

### 3. Kick Of Meeting



Opening of the project HOPaSus Erasmus Sport + Acronim HOP nr. 101049653, with the first mobility on 26-28 July 2022, the **Kick Off Meeting in Bucharest Romania**, has started with meeting the partners.

*Ms. Adina Geambașu PhD Univ. Lecturer at UNEFS Bucharest Romania and Ms. Andreea Ionel Head Manager at Tudor Argezi School Bucharest Romania* attended from Serbia (*Mr. Milan Djupovac- President of SDCS Sabac and Ms. Dragana Drljadic- leading researcher of SABAC Serbia*), and Lithuania (*Mr. Donatas Versechas- president of TAVO Europa*), who were present in Bucharest.

On the first day **26 July 2022**, the accommodation was held, and the visit at the National Village Museum Dimitrie Gusti of Bucharest with the introduction into the traditional Romanian culture.

The second day, **27 July 2022** the morning was opened with a tour of UNEFS, visiting from the main sport yard to the gym, athletics, games, fence, shooting, physical therapy lab at the conference hall and class spaces.

Continuing on 27 July 2022 was held the hybrid conference, with the online participation also of the Bulgarian partners (represented by *Mrs. Ida Valkova- researcher and youth trainer at Walk Together Association Bulgaria, and Mrs. Vilislava Metodieva- president of Walk Together Association Bulgaria*).

Partners held their own professional and institutional presentation, which improved the communication and also increased the prospect capacity of developing the future project.

The 4-hour conference with 25 participants, held the main actions of: opening the project, general presentation of the project, main objectives and challenges, deliverables, milestones, working packages, detailed budget and financial aspects, time table, responsibilities, roles, work agenda and mentimeter quiz and online google forms dissemination to the final discussions with present participants and also the online participants.

The 27 July 2022 evening was closed with a welcome dinner for partners, a good occasion for better acknowledgement.

Activities from day **28 July 2022**- were held at Tudor Arghezi School in Bucharest, with a tour and the workshop with the digital classrooms and also at the gym room and the outdoor playground. Participants during the workshop had also tested their abilities for a Ubisoft sport game called Just Dance for changing experience in a digital manner and also test the new school technologies.

The main tasks between partners were putted on the agenda and the doodle meetings has started scheduled with a frequency of 2 weeks feedback. Also the website and the research roles were accorded for the first educational pilot guide (tool kit) of the project. Organizing the future mobility meetings and also framing the main intellectual outputs and milestones were on the agenda for our first deadline mentioned in the time table.

Task 1.7- achieved.



#### 4. European Sport Week



As part of the European Week of Sport 23- 30 September 2022, UNEFS organised a series of events in which it was either a leader or a participant. Thus, within this event several types of activities were supported such as: workshops, round tables, media appearances, friendship games, gymnastics at work, etc, in which the HopaSus project was directly involved through the following activities below that create a bigger visibility and dissemination of the project aims and started to develop a community of participants, members and volunteers:



### **a.) Ludic activities for the youth**

Leisure time play activities - workshop by UNEFs on 24 September 2022 on sports fields and in sports halls, organized under the aegis of Be active European Week of Sport in Romania, which included 5 types of workshops, relay, rope, bocce, fencing and dance as well as team games (handball, volleyball, foot tennis, football).

The HopaSus project supported the playful workshop by introducing the central hero of the games, the HopaSus mascot, to the field during the stakes and the string competition. Children need heroes to be a source of inspiration and creativity and also discovered the joy of participating and experiencing movement games. Thus we opened the collaboration with secondary schools in Bucharest to prepare the first interactions with children in the first activity packages of the Erasmus Sport Plus HopaSus project and launched the curiosity of children and teachers to participate in future seminars and workshops, proposing new and interesting games both on the field and digital, the mascot being itself the animation of the source of digitalization.

**WORKSHOP  
24 SEPTEMBER 2022  
UNEFs BUCURESTI  
EUROPEAN SPORTS WEEK  
HopaSus- Playful games and competitions workshop**



*Total number of participants:*

- 100 children from 3 gymnasium school from Bucharest
- 13 accompanying teachers, 1 photographer, 1 media technician, 2 student volunteers, 1 teacher volunteer, 1 workshop coordinator and 1 mascot animator.

Number of participants per workshop: 15-18 children.

*Equipment:*

- Sports clothes and shoes.

*Venue and time:*

- Sports ground/ UNEFS gym (depending on weather).

- 12-15 hours.

*Materials:*

- Sound system: speaker, microphone, laptop
- Camera/video
- Whistle
- Timer
- Field markings
- Support baskets
- Notebook and pen for scoring
- 2 large physioballs
- 2 ropes
- 2 ducks with hoops for throwing at the target
- Jalisco sticks
- 2 normal plastic balls
- 1 competition rope
- 2 coordination hoops
- mascot.

*Hygiene:*

- Water dispenser, plastic cups
- Disinfected
- Litter bins/bags.

*Workshop time:* 25- 60 minutes.

*Workshop field preparation* at 11.00:

- Set up the workstations for the workshop and prepare the necessary audio and equipment
- Prepare the spaces for the reception of children and teachers.

*Introduction and welcome circle:*

Opening greetings, getting to know the participants and forming teams (Yellow team and Blue team), distributing tasks, communicating procedures and rules.

**Competitions:**

*1. Relay:*



a.) Two teams of children lined up one behind the other at a starting line, at the sound of the whistle they start running between the goalposts with the

big physioball in their hands over their heads to a basket where they place the ball.

b.) From the basket they take a rope and execute 10 rope jumps on the spot.

c.) Leave the rope in the same place and start the dwarf walk to the next station.

d.) Here they find a ball which they will throw from the stand on the spot, overhead to the back moving only their hands (the body remains straight) and catch it behind their back with both hands once. The ball will then be put back in place.

e.) Walk on your toes with your arms up to the next station.

f.) Here they find a ball with which they will do 10 ground strokes from the stand (5 with right hand, 5 with left hand). Leave the ball back in the basket.

g.) They run back to the basket with the physioball which they pick up and bring running to the next teammate.

The team that completes the applicable route first without penalty wins.

Played once only.

Fifteen minutes will be allowed for practice and getting used to the course and materials.

Penalties: stepping on the starting line, not completing the exercise, not following the previously established place in the procedure for the materials, irregular behaviour, not following the established route, sa.

## 2. *Rope:*



A long rope with a coloured mark in the middle and two start lines. Children in two teams equal in number and size, will grab the rope on one side and the other alternately.

At the sound of the whistle, the children pull in opposite directions to lure the opposing team towards their starting line.

When the first teammate of the opposing team crosses the opposite starting line, that team wins.

Initial demonstrations will be done for understanding.

It will be played 3 times.

The team that collects 2 points out of 3 wins.

Penalties: inappropriate behaviour or destruction of materials.

### 3. *Throwing at the target:*



Two ducks with hoops or/and two dartz boards with hedgehog balls depending on the weather. Throw from a set distance from a standing position with the hand the child is writing with. He then collects his hoops/balls and brings them to the next teammate.

The two teams will throw at the target, each team-mate has one attempt.

The team with the most points scored on target wins.

Penalties: misbehaviour, not bringing equipment to the next teammate.



The competition ends with the participants' awards and the feedback and fellowship circle, and also a happy together dance.

Together HopaSus for game, sun and movement!



## **b.) Youth and healthy life style- round table COSR**



On 27 September 2022 during the same European Sport Week Romania- Be Active Campaign, UNEFS was invited together with high performance athletes, psychologists, doctors, coaches and nutritionists to a round table discussion on Youth and Healthy Lifestyle at the Sport Ministry. During this panel activity the Rector of UNEFS Bucharest gave a lecture on the topic and also University Lecturer Doctor Adina Geambasu gave a lecture about the motivation and the role of promoting movement and health among young school children both by involving them in video games and by using them as a way to go out and play in search of the heroes on the screen.

HopaSus project and made its presence felt through the support of dozens of children, parents and teachers both in the room at COSR headquarters and behind the screens, the conference was live streaming on facebook, and received questions, likes and comments.

[https://www.facebook.com/watch/live/?extid=NS-UNK-UNK-UNK-AN\\_GK0T-GK1C&ref=watch\\_permalink&v=1426150027895438](https://www.facebook.com/watch/live/?extid=NS-UNK-UNK-UNK-AN_GK0T-GK1C&ref=watch_permalink&v=1426150027895438)



### c.) Channel 33 Moving Romania show



In the same approach to promote sport, on September 27, 2022, the television channel 33 Romania, in the Moving Romania Show, had as guests, together with the great rower Elisabeta Lipa

and Erasmus Sport Plus ambassadors, Adina Geambasu, PhD lecturer at UNEFS Bucharest to present future projects together with sports ambassadors and school children through involvement in the HopaSus project.

[https://www.youtube.com/watch?v=Kw500-9\\_Y6I](https://www.youtube.com/watch?v=Kw500-9_Y6I)

#### d.) National Sport Day at Work- Catchball



On 28th of September 2022 in all the parks in Bucharest within the Be Active Romania campaign, the Romanian Week of Sport, leisure activities, games and competitions were held as part of the Corporate games program. UNEFS participated with a number of 8 members in the catchball game held in Titan Park, where the mascot HopaSus was present to support the team and invite children on the sports field.

<https://fb.watch/g59u4SSGm5/>

5.

6.

#### 7. The pilot toolkit

## Part of T3.1

### **Initial measurements 5 video games implementation Final measurements Results and brochure Dissemination- Serbia Mobility**

The pilot tool that the SDCD Sabac team created want to show how video gaming is an untapped resource for enhancing young people's motivation and ability to participate in a wide range of sports and other movement-based activities.

Serbian partners have created a 5 tests challenges for children in order to measure the motrical aptitudes of children: strength, coordination, agility, equilibrium, resistance and speed, and also APECS postural tests, uploaded together in a HOP application guide for teachers and parents, that we used as initial and final measurements.

As a pilot work tool in the field of video game applications, we detected 5 sports games that we have disseminated online in schools with a brochure:

[FIE Swordplay,](#)

[I'm Ping Pong King,](#)

[Tennis World Open 2022,](#)

[Grand Mountain Adventure,](#)

[Biathlon Mani.](#)

*The results obtained will be disseminated and used for workshops and the creation of good practice guides, which will be implemented in the following work and mobility packages.*

Research indicates that video games can be used to enhance spatial abilities, motor skills, knowledge structures and transfer, visual selective attention and problem-solving skills.

Using this new paradigm will also allow teachers/educators/youth workers to “speak more the language of their children/students”, to understand their needs and to pass more easily to a digital transformation of their organization, as children and youth nowadays are more connected to the digital skills/news and they can pass their knowledge to their educators, teachers.

Incorporating video sports games into physical education is a new approach for the consortium organisations. Even though the partners are promoters of ICT strategies and they spread awareness of ICT technologies to their target groups, they haven't yet used video sports games in their teaching/training in a structured way.

If we mark communication as the basis of interpersonal relations, then it is clear that it can be an essential tool for achieving our goals with children. For parents, the most important thing is that adopt an assertive style of communication about all important issues with their children, even when they are in regarding the contents of the games they choose and the sports activities they engage in.

Joint family activities are extremely important for good communication with children, that's why conversations are ongoing shared games, whether it is a video game or a sports game, is a good opportunity to implementing parental suggestions.

The result will be disseminated by Serbian partners in their presentation.

## **Methods**

The first method was the questionnaire, as a research method for gathering data about the situation.

We used 2 types of questionnaire, for the teachers and parents, one survey for starting the project about an attempt to understand and evaluate the situation they face in teaching the subject of physical education and sport at secondary school through online access ([https://docs.google.com/forms/d/1Tbm-LezGkT64oXkTTpSY7dla67MWU-XaJZOaSe2L\\_AE/edit](https://docs.google.com/forms/d/1Tbm-LezGkT64oXkTTpSY7dla67MWU-XaJZOaSe2L_AE/edit)), and how to adapt to the new technologies and challenges posed by lock down, and one survey for evaluating children's attitude on physical activity and video games ([https://docs.google.com/forms/d/1ax1yOuO15sDgZDWqe-agS5Jze2GFk4\\_hd\\_U5TAKeG9s/edit](https://docs.google.com/forms/d/1ax1yOuO15sDgZDWqe-agS5Jze2GFk4_hd_U5TAKeG9s/edit)).

By starting the HopaSus protocol testing pilot tool kit we have created a battery of 5 tests and a visual digital posture measurement with APECS application that we have used as a initial and final battery test:

Please find below the research protocol created by serbian SDCS team:



*HopaSus research protocol*  
*Research manual for practitioners*

*Document developed by Sport Diagnostic Center Sabac for the needs of  
HopaSus project*

*In Serbia, September 2022*

*Authors: Prof Dragana Drljacic, Prof Aleksandar Ivanovski and Milan  
Djupovac*

Dear colleagues and friends,

This document has a goal to give you clear information about the research process (HopaSus research) in [HopaSus project](#). The idea is to assess the influence of children's playing sport video games on physical activity, healthy behavior and body posture.

Research process consists of 3 phases: initial test, implementation of HopaSus recommendations and final test. Initial and final tests will be described further in this document, and HopaSus recommendations you will find in a separate document.

As mentioned, initial and final test will be done through several instruments: healthy behavior, physical challenges and body posture. Information about healthy behavior will be collected through an online survey. For the physical challenges, we will use home based complex physical exercises in order to assess level of physical skills. Body posture will be assessed using participant body photos.

It is important to inform all participants that collected personal data will be used for research and educational purposes. Also, all participants (parents and guardians) will be informed about this before they start using an online survey. Accepting parent/guardian accordance, participants are safe about their personal data and can continue participation in HopaSus research.

HopaSus recommendations will be applied immediately after the initial test, and it will run from October 2022 till end of December 2022, and final test has to be done at the end of this period. It is important to track applied recommendations with a parent/guardian online log book that will be presented to parents at the end of December 2022.

Target group of HopaSus research are children from age 11 till age of 15 years and their parents/guardians. Children can be organized in project participation through schools, sport clubs, youth associations, other organizations or individually.

HopaSus research will be conducted in four European countries: Romania, Bulgaria, Lithuania and Serbia.

Every country will have HopaSus research coordinator which will be your local contact point.

All collected data in the research process will be supplied to the coordinator.

Important: Note, all participants must do first survey, because they will accept or refuse parent/guardian accordance for research!

Important: Implement the initial test before HopaSus recommendations!

Important: If it is possible, try to organize group testing for the body posture

## HEALTHY BEHAVIOR SURVEY

The survey is intended for children's parents/guardians, where we will collect data about children's health habits in an indirect way.

Before the survey, parents/guardians will be informed about protection of their personal data and accepting accordance they can continue participation in research.

The survey will collect data about children's: level of physical activity, mobility from home to school, rest behavior and information about playing video games.

Survey must be done first because it contains accordance for project participation.

You can find online survey [over this link](#)

Repeat survey at the end period of recommendations (close to end of December 2022)

## PHYSICAL CHALLENGES

In order to assess the level of physical skills, we use five complex exercises that can be done at home.

It is important that the initial test is done without previous practicing of challenges. So don't try it! Children can do challenges after parents complete a survey!

Implement the initial test before recommendations!

All challenges are video recorded by parent/guardian or coordinator in the way that participant is visible all the time during the challenge.

Coordinator can organize group or individual testing, or it can collect video files from participants. We recommend that all children are supervised by an adult when attempting these challenges. All participants take part at their own risk. The coordinator does not accept responsibility for injury as a result of taking part in this project.

Final test is to be done with same challenges at the end period of recommendations (close to end of December 2022)

### *List of Challenges*

#### *Challenge 1*

For this challenge, you need a skipping rope (professional skipping rope or any other rope you have at home) and adequate space at home where you can do the challenge;

Assume the starting position, holding the ends of the rope, arms straightened and alongside the body, and the middle of the rope on the floor behind your feet;

When ready to start, move your arms upwards, turn the rope over your head and start skipping over the rope;

You may use double jumps (turn the rope slower and have one small hop between jumps over the rope) or single jumps (turn the rope faster and jump over the rope without hopping between the jumps), but remember to jump with both feet at the same time (simultaneously);

The challenge is to perform consecutive jumps in a period of one minute; Challenge yourself and be active!

[VIDEO](#)

#### *Challenge 2*

For this challenge, you need two plastic bags and an adequate space at home where you can do the challenge;

Take the two plastic bags in one hand, holding them for the bottom part and not their handles;

Start tossing the plastic bags, one by one, in front of your body and head;

Continue in that manner, tossing the plastic bags using only one hand, and don't let any of the bags fall on the floor;

The challenge is that you juggle the bags for 20 consecutive times, tossing alternatively one by one bag, using only one hand in a period of one (1) minute;

Challenge yourself and be active!

\* You may use your right or left hand !

[VIDEO](#)

### *Challenge 3*

For this challenge you will need two (2) T-shirts, a bed or chair and adequate space at home;

Put on both T-shirts;

Take a position with your face facing the floor, raise your legs on the bed or chair, place your palms on the floor shoulder-width apart, and keep your arms and body straight;

From that position, try to take off one T-shirt and then put it on again;

The challenge is to do this within a one-minute period;

Challenge yourself and be active!

Remember

- Use both hands alternately to take off the T-shirt;
- One T-shirt must be worn during the whole exercise / challenge;

[VIDEO](#)

### *Challenge 4*

For this challenge, you need: a medium-sized ball (a basketball is best, but you can use another ball of a similar size) and adequate space at home;

Kneel on your knees and start tapping the ball using your right, then left hand alternately;

After doing 10 repetitions in that position, straighten up in a standing position;

Do not stop tapping the ball and do 20 repetitions in a standing position using alternating right and then left hand;

After doing 20 repetitions in a standing position, without stopping to tap the ball, return to the original position, kneeling and do 10 more repetitions;

Challenge yourself and be active!

## VIDEO

### *Challenge 5*

For this challenge, you need a ball and adequate space to complete the challenge;

Stand up straight and hold the ball in front of you with both hands;

The challenge is to throw the ball back over your head, and catch it with both hands behind your body while keeping your body straight;

Challenge yourself and be active!

## VIDEO

### *BODY POSTURE*

The postural assessment will be carried out by photogrammetry technique through a digital tablet/mobile application, able to reconstruct the posture from photography (Roggio, et al., 2021). It has to be performed at the very beginning of the experimental program, before the implementation of the recommendations (initial test) and at the end of the program (final test).

### **Equipment**

- portable device (mobile phone / tablet) and (if it's possible) camera stand (tripod);
- APECS mobile application (New Body Technology SAS, Grenoble, France).

### **Procedure**

During the measurement, the child is barefoot on a flat and firm surface, dressed in shorts (boys) or shorts and top (girls). Shorts should be dropped to the hips. Hair should be tied up.

The child is in an upright standing position with his arms next to his body, and feet hip-width apart. The head is positioned so that the "Frankfurt plane" occupies a horizontal position (the "Frankfurt plane" is the line joining the lower edge of the left orbit and the upper edge of the left external canal, Figure 1).

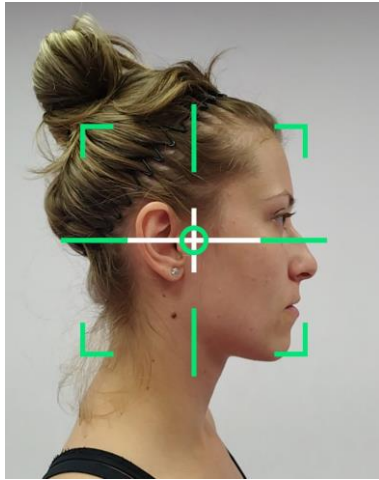


Figure 1. Frankfurt plane. The horizontal line represents the right position of the Frankfurt plane during assessment.

Two digital photographs (of front and right side) have to be recorded using an APECS mobile application. Try and get a blank wall behind the child, as this helps us see things better.

The portable device has to be set on a tripod (camera stand), two to three meters away from the line marking the position of the child. The height of the tripod has to be adjusted, so the middle of the objective lens is at the level of the center of the body (referent point can be the child's navel).

We recommend that photos be made by one, always the same examiner (coach / sport teacher...) - the person designated by the coordinator of the partner organization.

If you are not able to organize a photo shoot by a sports worker, alternatively you can instruct the parents to make them at home.

### **Step-by-step instructions of how to use APECS mobile application for making photos**

APECS mobile application can be downloaded for free from Google Play or the following website: <https://apecs.newbodytechnology.com/>. Note: sports teachers / coaches / parents will use it only for the purpose of taking a photo of the child, which will further serve us to assess body posture.

Before opening the application, the user (photographer) should check where the screenshot button is located on his portable device.

When the application starts, the photographer will see the home screen, where he/she has to choose *Quick Analysis* (presented on Figure 2).



Figure 2. Screenshot of home screen of APECS mobile applications. The red circle indicates the button to be pressed.

Pressing the *Quick Analysis* it will appear a screen in the center of which is a button in the form of a blue camera. Pressing the *front* or *right side* button, that is located at the bottom of the screen (indicated by the red arrow in Figure 3A), the photographer chooses whether to take a photo from the front or from the right side (front is set by default).



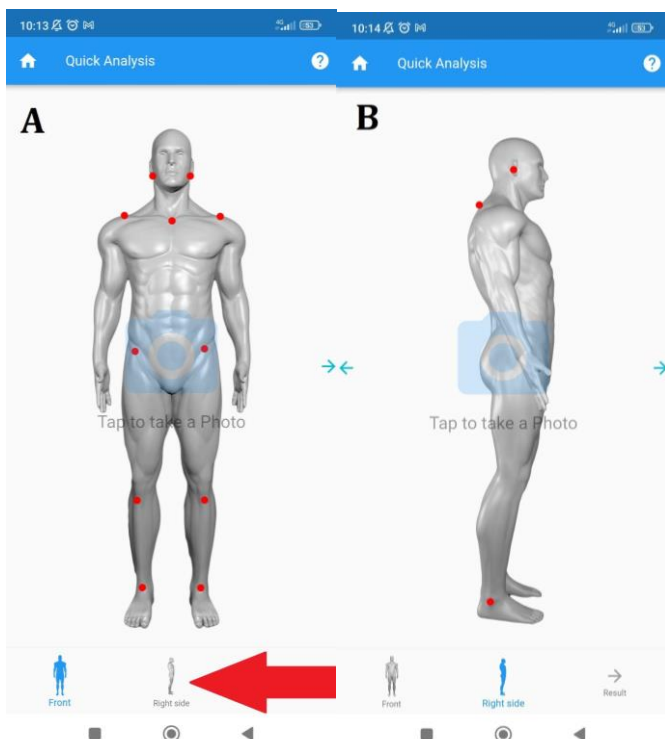


Figure 3. Screenshot of Quick analysis screens. A - front and B - right side position of subject. The red arrow indicates the place where the buttons are to be pressed in order to select the desired position for photography.

When the user taps to take a photo, at the bottom of the screen will appear a question from which source he/she wants to pick a photo (Figure 4). It has to be selected “Camera”.

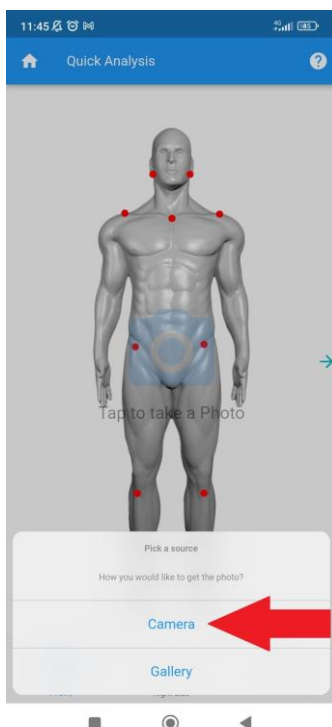


Figure 4. Selecting a photo source.

Choosing the *Camera* button, the phone's camera will activate. In the same time, across the screen it will appear a stative red square with a circle in the center, and a mobile white cross (Figure 5A). The photographer should take a position about 2-3 meters from the child, so that the camera covers the entire body of the child. The circle of the red square should be positioned in the center of the child's body (approximately just below the navel), and then, moving the phone with light movements, the white cross should overlap with the red square. The moment they are folded correctly, the red square will turn green (Figure 5B). That's the moment when the photographer needs to take a photo.

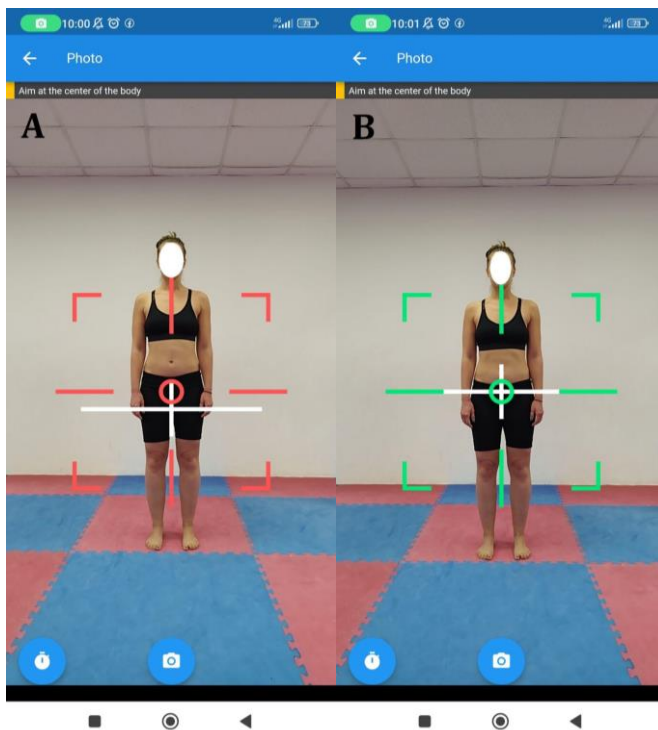


Figure 5. A. Positioning camera lens for shot. B. Moment for taking a shot, when the lens is positioned at the center of the body.

Immediately after taking a photo, the application will offer to crop the photo, but it doesn't need to be cropped, just screenshoted (Figure 6).



Figure 6. Screenshot of the photo taken in the front view. The application offers a crop, but actually the photographer needs to make a screenshot of the photo at that moment.

The same procedure has to be done with the child turned on the left (to make a photo of the child's right side) (Figure 7).

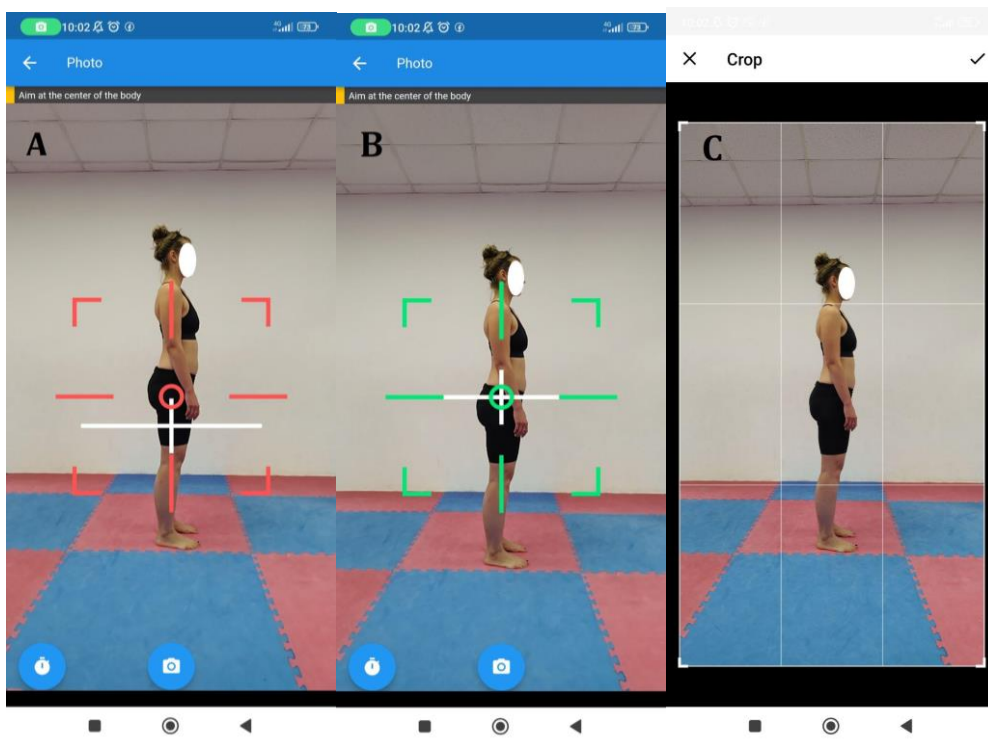


Figure 7. Taking a photo from the right side. A - Positioning camera lens for shot, B - Moment for taking a shot, C - Taking screenshot of the photo.

## DATA COLLECTING

During the research process, there will be a big amount of data that has to be saved and stored in the proper way.

We recommend collecting and storing data through Google tools (G drive) at coordinator's Google account.

Please open a folder under the name *Initial test* and *Final test*. In every of them open the same subfolders under names *Survey*, *Challenge* and *Posture*.

In folder *Challenge* and *Posture* open as many folders as participants you have, folder just name them with number, starting from 1 till you have (example 82). Please place these into individual folder participant's challenge video files and posture photos.

### **References:**

APECS: All Posture Evaluation and Correction System, available on <https://apecs.newbodytechnology.com/>

Roggio F, Ravalli S, Maugeri G, Bianco A, Palma A, Di Rosa M, Musumeci G. Technological advancements in the analysis of human motion and posture management through digital devices. *World J Orthop* 2021; 12(7): 467-484 [PMID: 34354935 DOI: 10.5312/wjo.v12.i7.467]

### ***The HopaSus recommendation for practice were:***

HOPASUS RECOMMENDATIONS For parents, teachers, coaches, youth workers and other HopaSuS practitioners \*following text is written for parents, but it can be transferred to all HopaSuS users.

If we mark communication as the basis of interpersonal relations, then it is clear that it can be an essential tool for achieving our goals with children. For parents, the most important thing is that adopt an assertive style of communication about all important issues with their children, even when they are in regarding the contents of the games they choose and the sports activities they engage in. Joint family activities are extremely important for good communication with children, that's why conversations are ongoing shared games, whether it is a video game or a sports game, is a good opportunity to implementing parental suggestions.

1. Open assertive communication with children regarding video games and sports Assertive communication would mean open communication with children in which we stand up for the own goals, for example to recommend them sports content both virtual and in real life, but at the same time taking into account their own wishes. The child should be given to say what he likes and should encourage the development of his self-confidence.

Communication with children should to be the golden middle'' between aggressive and passive communication, one must not insist on exclusive satisfaction of the parents needs, and also the parent must not withdraw with the aim of not reproaches to the child.

2. Involvement of parents in children's digital life Although excessive consumption of digital content causes a number of negative psychological and physical effects consequences for children, we cannot expect that by taking away phones and digital devices, we will solve the problem. It is necessary to develop communication with the child regarding his favorite digital devices game, educate yourself, familiarize yourself with the same and only then suggest that sports content is better and higher quality than various other aggressive and violent ones.

3. Involvement of children in real sports activities, following the example of parents Learning by imitation is an indispensable form of socioemotional and cognitive development of children, basic patterns of communication are learned in the earliest periods of life. Children have a need to they imitate roles and if family members play sports and are physically active, it is higher the probability that exactly such behavior will affect the child. Even parents' talk about sports can motivate children to get involved in sports.

4. The ability to actively listen to the child's wishes and the wishes of the parents One of the main prerequisites for good communication with children is the parents' ability, will and willingness to listen to the interlocutor (child). Successful verbal and non-verbal communication it implies a high level of trust, appreciation and empathy. If a parent develops your abilities, it is more likely that the child will be ready to listen and adopt the suggestions of the parent's various life situations, and especially related to nice activities such as sports and sports video games.

5. Avoiding "over" explanations regarding video games and the importance of sports activities Communication as the basis of relationships in the family, in which thoughts and emotions are exchanged and built relationships, requires parents to be in a good mood and very patient. On the other side of the new one digital generations have less and less the gift of patience and concentration, which is why we need to work with children speak briefly and clearly, concisely draw their attention to a problem or behavior, without posturing lesson.

Sometimes short and positive suggestions "you will be more popular" or "you will be more beautiful" if you work sports give better results than a detailed explanation of how long-term consumption of aggressive, of violent video games negatively affect their psycho-physical health.

### HOPASUS SPORT VIDEO GAMES RECOMMENDATIONS

Beside of communication recommendation, we give recommendation for simple and free of charge sport video games that can be played at smartphone. Based on your experience and wish of children, other sport video games can be played. Feel free to explore the world of sport video games!

Clicking on the icon it will link you to the video game:

[FIE Swordplay, I'm Ping Pong, King Tennis World Open, 2022 Grand Mountain Adventure, Biathlon Mania](#)

The meetings between partners for the preparation of the project were held online, all the documents were filled in Google Drive and we worked in a collaborative way, with no printing; as the projects recommends the utilization of sport video gaming in education of children and youth – that will mean less documents printed, less administrative burden for the sport teachers as they can see the performance of their students directly in the sport video gaming platforms; transport of children/students to do practical sport activities at school can be reduced; the promotional materials and IOs will all be done in a digital format. Also, the multiplier sport events for the dissemination of the project results will be held online in order to reach wider audiences and to get them used with online sport communities, team sport video gaming as a tool for education. Please find below the brochure guide for HopaSus recommendation video games.

In the research work we had 61 children, including 28 boys and 33 girls, from gymnasium grades 5-8 from two schools in Bucharest (Tudor Arghezi School Sector 2, Secondary School no. 56 Sector 2) and one in Buzau (Margareta Sterian School). Under the guidance of their sports teachers, the children took the 5 evaluation initial and final tests and pictures with the APECS application and participated in the relay with joy and enthusiasm, animated by the mascot HopaSus. At the end of the workshop, the children received prizes and access to the website and infographic emoticons.

The children showed great interest in all the activities involved in the relay but especially in the idea of competition. Their mobilization was easy both through the very good collaboration with the teachers of the school but

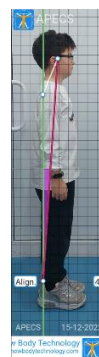
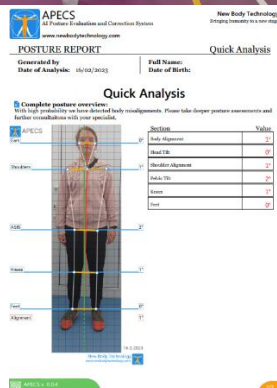
especially the direct involvement of the game that brought them on the sports field curious and happy to move.

There was a greater difficulty in jumping rope for many of the participants, poor coordination and slowed pace. On average the rest of the events did not present great difficulty in performance.

The main hero of the workshops was the mascot HopaSus who had a central role and easily mobilized the children to participate but specially to keep communicating with the games and to be expected and wanted. The mascot offered prizes, supported the children during the quizzes and the stakes and offered support and advice, so it became a must be of the games.

Although the great difficulty was to create a proper motivation both for parents, children and teachers to participate to those small pilot kit testing due to the resistance to the exposure and also lack of knowledge about gaming and projects in the educational process.

Children played the 5 recommended video games between the initial and final tests both virtually and tried also a practical imitative approach.







Familiarize yourself  
with children's  
favorite digital  
content



Understand  
children's needs  
but follow your  
goals

Be physically active  
and speak about  
sport when you are  
with children



Actively listen to  
your children, show  
them trust,  
appreciation and  
empathy

Avoid "over"  
explanations regarding  
video games and the  
importance of sports  
activities



The sole responsibility of this publication lies with the author. The European Union is not responsible for any use that may be made of the information contained therein.

....and then you can suggest to children to be physically active and to play sport video games!



*Be active and explore the world of sport video games!*

#### Partners



Ref. No. 101049653 – HOP

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Email: [adina.p.geambasu@gmail.com](mailto:adina.p.geambasu@gmail.com)

Co-funded by the  
Erasmus+ Programme  
of the European Union



## 8. Communication and dissemination

Next to the HopaSus mascot to attract more the children interest and for better transparency and contemporary communication mode, the graphic Serbian SDCS team created also the HopaSus emoticons that we have disseminated among schools, teachers, children, universities on Wassup, Viper, Signal and other social communication media tools:



For transparency and communication, we used the online way of meetings through the [google meet](#) platform, agreed with all partners through doodle, for a better transmission of information and discussions. We also have a [wassup group](#) and a [drive](#) where we upload all relevant data for the project, measurements and research results. Also we keep all necessary infos contact by [mail address](#). The website [www.hopasus.eu](http://www.hopasus.eu) page was launched in August 2022 and is up and running. **D 1.2. – achieved.**

### Task 3.2.- achieved

On March 24-26, 2023, the transnational meeting of partners took place in Šabac, Serbia. The UNEFS team was represented by 3 team members – Adina Geambasu, Anca Ionel and researcher Raluca Maria Costache.

The meeting was also attended by partners from:

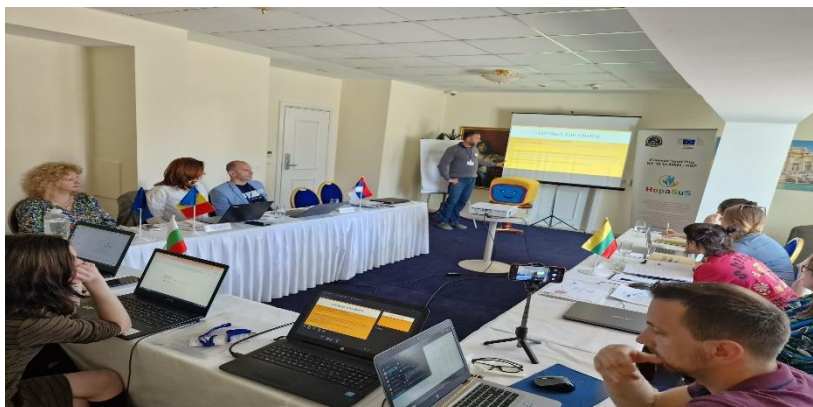
- Bulgaria (WalkTogether) with members: Ida Valkova, Lora Hristova and Vilislava Metodieva.

- Lithuania (Tavo Europa) with members: Greta Paskočiumaitė, Lina Bartaševičiūtė, Pauline David and Mariangela Cardone, and

- Serbia (SDCS) with members: Milan Djupovac, Dragana Drjliacic and Aleksandar Ivanovski.



The first day of the meeting started with a session led by UNEFS: all the partners were guided through a review of the timeline of the project, its budget and each partners responsibilities, alongside a summary of future activities to be implemented.



Then the speech time table was taken by SDCS, who presented the results, analysis and conclusions related to the research previously conducted in all the partners countries on youth engagement with sports and videogames.



After a quick coffee break, UNEFS as the coordinator of the project proceeded to introduce the partners to the country report template.



Later on, all the partners joined a session of exchange of good practices related to the production of educational material for the project, a session that ended with the definition of the strategies that will be adopted by each partner in the process.



The second day of the project was opened by a workshop organized by SDCS in a local sport club: the project's mascot, Hopasus, appeared during the children's training encouraging them to exercise and animating the training.



The last sessions of the meeting focused on the communication&media strategy for the project and on the future activities to be implemented. Also video production for dissemination was organized by SDCS: the partners gathered to decide the script for the videos, including the questions to interview each other on the current state of the project and its implementation.

During this meeting, the date of the visit in Lithuania was agreed. The tasks that the partners will try to implement in the near future have been define.

The tasks with deadlines for continuous working were:

- status quo and tool kit (november 2022)
- research and piloting the tool kit with measurements (march 2023)
- Hopasus guide, developing the e community and data analysis (november 2023)
- e community final report (may 2024)

The fixed deliverables time table:

- Project website online publication- (31 october 2022)- delivered
- Project framework- document report en- (31 august 2022)- delivered
- Communication and public media publication- 15 pages word doc (august 2022)- walk together Bulgaria- delivered
- 4 country reports- 30 PAGES WORD DOCUMENT (june 2023)
- 3 ppt presentations in 4 languages - (July 2023)
- 1 HopaSus guide 100 pages- (october 2023)
- 4 video tutorials ENGLISH- (june 2023)
- 1 HopaSus platform- (march 2024)
- FINAL REPORT- Feedback and survey questionnaires- 80% of participants- (may 2024).

E1.7. \_WP 3- accomplished.

#### 4 video tutorials

In the achievement of **Task 2.2**- we elaborate 4 video tutorials on how to use sport video gaming in classrooms/ activities with youth- after piloting the HopaSus Educational Toolkit we had generate the content for the videos, taking into consideration game design principles and psychology through the game tutorial. The videos explain and make difference and give models on how to educate new children players in sport education in the same time through a combination of good design and basic understanding of human educational, motivational and cognitive psychologies.

**D 2.6, D 2.7, D 2.8, D 2.9- achieved.**

Please find below the link for watching the videos:

[www.hopasus.eu](http://www.hopasus.eu)

## Appendices

*Annex no. 2 to the Order of the Minister of National Education no. 3393 /*

*28.02.2017*

**MINISTRY OF NATIONAL EDUCATION**

**School curriculum  
for discipline**

**PHYSICAL EDUCATION ANDSPORT  
Grades 5 to 8**

**Bucharest, 2017**



## Presentation note

The school curriculum for *Physical Education and Sport* is an official document describing the curricular offer for secondary education (grades 5-8). The subject is included in the curriculum in the curriculum area *Physical Education, Sport and Health*, with a time budget of 2 hours/week during each school year.

According to the provisions of the National Education Law no. 1/2011, as amended, art.68, paragraph (2), "Physical education and sport in pre-university education are included in the common core curriculum". The Law on Physical Education and Sport No 69/2000, as amended, states that "**physical education and sport are activities of national interest supported by the State**". O.M.E.C.T.S. no. 3462/2012 regulates the organisation and conduct of physical education and sport activities in pre-university education. Accordingly, in pre-university education, physical education and sport appear both as curricular and extracurricular activities.

*The Physical Education and Sport* curriculum is developed from the perspective of the competency-based curriculum design model. The construction of the curriculum is designed to contribute to the development of the training profile of the secondary school graduate. From the perspective of the subject of study, the orientation of the didactic approach, starting from competences, allows to emphasize the purpose of learning and the action dimension in the formation of the student's personality.

**The structure of the curriculum** includes, in addition to the introductory note, the following elements:

- General skills
- Specific skills and examples of learning activities
- Contents
- Methodological suggestions

**Competences** are structured sets of knowledge, skills and attitudes acquired through learning, which enable domain-specific or general problems to be solved in various particular contexts.

**The general competences**, targeted at the level of *Physical Education and Sport*, mark the student's acquisitions for the whole secondary cycle. They contribute to the formation of a healthy lifestyle for the pupil and to the harmonious physical and motor development of the pupil.

**Specific competences** are derived from general competences and represent acquisitions acquired during a school year. In order to achieve specific competences, the programme proposes **examples of learning activities** which make use of the learner's concrete experience and which integrate teaching strategies appropriate to a variety of learning contexts.

**The contents of** the training are grouped into the following areas:

1. Organisation of motor activities
2. Harmonious physical development
3. Motor skills (motor skills and qualities)
4. Sports disciplines
5. Hygiene and personal protection
6. Behaviours and attitudes

**Methodological suggestions** include references to the design of teaching activity, teaching strategies, as well as the evaluation elements.

This curriculum offers a flexible offer, allowing teachers to modify, supplement or replace learning activities. The aim is thus to achieve a personalised teaching approach, which ensures the training of the competences set out in the syllabus in the specific context of each class and each pupil. A specific approach to education at this age level is also needed, which at the same time offers a wide range of differentiation in the teaching approach, depending on pupils' learning.

*The Physical Education, Sport and Health* curriculum area contributes directly to the aims of education, which are the maintenance of pupils' health through the use of various types of motor activities. *Physical education and sport* is the subject through which harmonious physical development is influenced, motor skills are formed, effort capacity is developed and integration into the natural and social environment is fostered. In this way, a progressive acquisition of skills is aimed at,

by making the most of the pupils' age-specific experience, by emphasising the affective-emotionalattitudinal and actional aspects of their personality.

In the spirit of the above-mentioned aspects and in order to ensure a modern teaching process, based on an optimal educational offer, taking advantage of the differentiated instruction of students, based on particular learning paths, individual or group, it is necessary, in accordance with the practicalreality, that in grades 5 - 8 to ensure the acquisition by students of the necessary skills to act on physical development and motor skills, as well as to practice some sports disciplines / tests, as follows:

▪ **in 5th grade:**

- Athletics: three athletic events, preferably from different groups;
  - Gymnastics - an integral exercise with static and dynamic acrobatic elements and combinations; ovaulting on the gymnastics apparatus;
- Sports games: a sports game.

▪ **in 6th grade:**

- Athletics: three athletic events, from different groups (those taught in 5th grade);
  - Gymnastics - an integral exercise with static and dynamic acrobatic elements and combinations; a gymnastic apparatus jump;
- Sports games: two sports games, one of which is the one taught in 5th grade.

▪ **in 7th grade:**

- Athletics: three athletic events from different groups (two of those taught in 6th grade; one newathletic event);
  - Gymnastics an integral exercise with static and dynamic acrobatic elements and combinations;the gymnastics apparatus jumps, from the program, at your choice;
- Sports games: a sports game (the one the students were introduced to in 6th grade).

▪ **in 8th grade:**

- Athletics: two athletic events, chosen from those taught in previous years;
  - Gymnastics - an integral exercise with static and dynamic acrobatic elements and combinations; jumps on the gymnastic apparatus, from the program, of your choice;
- Sports games: one optional sports game from those taught in previous years.

**Alternative sports subjects** are taught, with the approval of the headmaster of the educational establishment, during specified periods, only in special situations determined by environmental factors and the technical-material basis, provided that there are the necessary teaching materials for all the pupils of the class and the certified professional competence of the teacher in teaching the sports subject in question. The contents and assessment criteria for each alternativesport subject are determined by the class teacher and approved by the school inspector.

The training situations will facilitate students' understanding of the specifics of physical education and sport by providing a variety of learning experiences: as a practitioner, as a referee/organizer of motor activities, as a spectator.

The physical education curriculum, a document that regulates the teaching process, establishes specific competences and allows each teacher to use teaching aids corresponding to the content areas mentioned above, depending on the specific features of the class and the concrete conditions of activity.

The approach to these contents will be carried out in an integrative manner so that the trainingsituations allow the acquisition of knowledge, the formation of skills/abilities and attitudes corresponding to the specific competences.

The school curriculum has a concentric character, in order to build on specific competences formed in the previous year/years of study (some of the contents necessary for the formation/strengthening of skills) and to favour the phenomenon of transfer in learning. Content marked with an asterisk (\*) is an alternative offered to blind or partially sighted pupils integrated into mainstream education.

## **General skills**

- 1. Using the beneficial effects of physical education and sport in constant exercise to optimise health**
- 2. Use of specific physical education and sport acquisitions for their own harmonious physical development and motor skills**
- 3. Demonstrate appropriate behaviour according to specific rules during the organisation, practice and participation as a spectator in physical education and sport activities**

## Specific skills and examples of learning activities

### 1. Using the beneficial effects of physical education and sport *in constant exercise to optimise health*

Fifth grade	Class VI	Seventh grade	Eighth grade
<p><b>1.1. Recognising the main aspects of general health</b></p> <ul style="list-style-type: none"> <li>- identifying objective signs that indicate an alteration in one's health status</li> <li>- monitoring the general state of health during the activities carried out and reporting possible problem situations</li> </ul> <p><b>1.2. Identify, in physical education activities, factors that increase the body's resistance to harmful environmental influences</b></p> <ul style="list-style-type: none"> <li>- participation in the various stages of the lessons, with exposure to the various influences of natural tempering factors</li> <li>- adapting the equipment during the lesson according to the influence of environmental factors and the body's reaction to effort</li> </ul>	<p><b>1.1. Working with basic physiological indicators of age- and gender-specific health status</b></p> <ul style="list-style-type: none"> <li>- determination of own morphological and functional parameters</li> <li>- comparison of own physiological index values with age- and gender-specific normal values</li> </ul> <p><b>1.2. Applying measures to prevent harmful influences of environmental factors during physical education activities</b></p> <ul style="list-style-type: none"> <li>- hygienic work</li> <li>- appropriate adoption of the type of breathing according to the environmental temperature</li> </ul>	<p><b>1.1. Applying ways to maintain key health indicators</b></p> <ul style="list-style-type: none"> <li>- systematic preparation of the body for each type of effort</li> <li>- alternating efforts with breaks for the body to recover (active, passive)</li> <li>- adoption of accident prevention measures</li> </ul> <p><b>1.2. Adapting measures during physical education activities to prepare the body for exertion in various environmental conditions</b></p> <ul style="list-style-type: none"> <li>- progressive exposure of the body to environmental influences during activity, in accordance with the body's own reactions</li> <li>- active participation in the implementation of general training programmes and specific body for effort</li> </ul>	<p><b>1.1. Adopting a daily lifestyle conducive to maintaining and optimising health</b></p> <ul style="list-style-type: none"> <li>- determining the age- and gender-specific height-weight ratio and taking measures to maintain it within normal values</li> <li>- learning exercises and physical development complexes for use as daily gymnastics</li> <li>- learning exercises to develop motor skills in order to use them in leisure time to strengthen the body</li> </ul> <p><b>1.2. Progressive exposure to aggressive environmental influences during physical education activities</b></p> <ul style="list-style-type: none"> <li>- participation in the conduct of stages of the lesson involving progressive exposure to the influence of stressful environmental factors (relatively low/high temperatures, wind, snow)</li> <li>- carrying out exercises adapted to different environmental conditions</li> </ul>

## 2. Use of specific physical education and sport acquisitions for their own harmonious physical development and motor skills

Fifth grade	Class VI	Seventh grade	Eighth grade
<p><b>2.1. Recognition of terms specific to harmonious physical development</b></p> <ul style="list-style-type: none"> <li>- performing, on command, basic positions and movements of the main body segments and regions</li> <li>- performing free exercises and exercises with selective locomotor influencing objects</li> <li>- adopting the correct body posture during the lesson</li> <li>- redressing poor body posture at attention</li> </ul>	<p><b>2.1. Use of terms specific to harmonious physical development</b></p> <ul style="list-style-type: none"> <li>- practising, with the concomitant terminological description, the positions and movements of body segments</li> <li>- performing exercises with hand-held objects to selectively influence the locomotor system</li> <li>- comparing own body posture with the model presented (plates, films, slides), etc.</li> <li>- observing and warning each other about possible deviations from correct body posture</li> </ul>	<p><b>2.1. Working with indicators specific to harmonious physical development</b></p> <ul style="list-style-type: none"> <li>- conducting, using specific terminology, harmonious physical development exercises</li> <li>- prophylactic exercises to avoid spinal deviations</li> <li>- checking, in pairs, the appearance of the spine</li> </ul>	<p><b>2.1. Applying specific concepts of harmonious physical development in different contexts</b></p> <ul style="list-style-type: none"> <li>- partial or full management of a physical development complex, using specific terminology</li> <li>- performing exercises to correct the most common deviations from correct, global and segmental body posture</li> <li>- design and presentation of a physical development complex</li> </ul>
<p><b>2.2. Identify, in physical education activities, the elements that define harmonious physical development</b></p> <ul style="list-style-type: none"> <li>- exercises for training and strengthening the correct global body posture reflex</li> <li>- performing exercises to prevent the installation of the main deviations from the correct overall posture</li> <li>- determining the causes and taking measures to prevent the installation of deviations from the correct posture</li> <li>- mastering corrective exercises for postural deviations</li> </ul>	<p><b>2.2. General characterisation of own physical development</b></p> <ul style="list-style-type: none"> <li>- study in the mirror, from the front and from the side, of the overall body posture</li> <li>- comparing personal global body posture with the models presented (plates, films, slides)</li> <li>- determining body height and weight and calculating a nutrition index</li> <li>- checking the positions and aspects of the main body segments and comparing them with the models shown</li> </ul>	<p><b>2.2. Applying the most important measures for harmonious physical development</b></p> <ul style="list-style-type: none"> <li>- mastering prophylactic and corrective exercises to ensure correct body posture</li> <li>- practising physical development complexes with free exercises, with portable objects, in pairs</li> <li>- performing exercises to selectively influence body segments</li> <li>- learning and carrying out exercise programmes to correct global and segmental postural deficiencies, as appropriate</li> </ul>	<p><b>2.2. Use of measures and means of harmonious physical development in accordance with individual characteristics and interests</b></p> <ul style="list-style-type: none"> <li>- individual physical development/attitude correction programmes</li> <li>- exercise programmes to avoid/eliminate overweight</li> <li>- carrying out exercise programmes to develop trophicity (for boys) and develop suppleness (for girls)</li> </ul>

Fifth grade	Class VI	Seventh grade	Eighth grade
<p><b>2.3. Recognition of simple exercises to develop basic motor skills</b></p> <ul style="list-style-type: none"> <li>- exercise specific means of developing motor skills</li> <li>- practising movement games / relays specific to the development of motor skills</li> <li>- the use of means and tools to determine the value of the level of manifestation of motor skills</li> </ul>	<p><b>2.3. Performing simple exercises to develop basic motor skills</b></p> <ul style="list-style-type: none"> <li>- performing specific exercises to develop motor skills</li> <li>- the completion of specific application trails to develop motor skills</li> <li>- specific preparation of the body for each type of effort</li> <li>- respect in execution of the specific parameters of each motor quality</li> <li>- participation in speed, strength, skill/coordination and endurance competitions</li> </ul>	<p><b>2.3. Performing complex exercises to develop motor skills</b></p> <ul style="list-style-type: none"> <li>- specific exercises to develop motor skills under conditions of differentiated treatment</li> <li>- practising simple and complex motor structures specific to sports disciplines, with an emphasis on developing motor skills</li> <li>- performing exercises that involve more than one manifestation of each basic motor skill</li> <li>- performing executions involving the display of coordination in the manipulation of objects</li> </ul>	<p><b>2.3. Performing exercises to develop combined motor skills</b></p> <ul style="list-style-type: none"> <li>- performing specific exercises to develop basic and combined motor skills</li> <li>- practising the means of developing motor skills through specific methodical procedures</li> <li>- engaging in combined speed and coordination development exercises at the required level</li> <li>- engaging in segmental strength and endurance development exercises at the required level</li> </ul>
<p><b>2.4. Execution of technical procedures in simple motor structures - specific to the sports disciplines studied</b></p> <ul style="list-style-type: none"> <li>- the exercise components of the basic mechanism of technical procedures</li> <li>- full practice of each technical element/procedure until the basic mechanism is automated</li> <li>- performing actions specific to the sports disciplines studied, consisting of 2-3 technical elements/procedures</li> <li>- practising technical procedures in the form of competitions</li> </ul>	<p><b>2.4. Execution of technical procedures in motor structures specific to the sports disciplines studied</b></p> <ul style="list-style-type: none"> <li>- practising technical procedures structured in progressive structures in terms of complexity</li> <li>- practising motor structures specific to sports disciplines, in the form of a race/competition</li> <li>- practising motor actions, specific to the sports disciplines studied, in various conditions</li> <li>- technical-tactical actions in compliance with certain provisions simplified regulations</li> </ul>	<p><b>2.4. Application of basic technical procedures in tactical actions specific to the sports disciplines studied</b></p> <ul style="list-style-type: none"> <li>- practising technical procedures in individual and collective technical-tactical structures</li> <li>- the overall practice of sports disciplines/ events, in the form of a competition with simplified rules</li> <li>- technical-tactical actions in compliance with the main regulatory provisions</li> <li>- practising technical-tactical actions designed according to individual characteristics and preferences</li> </ul>	<p><b>2.4. Application of technical procedures and tactical actions in the overall practice of the sports disciplines studied</b></p> <ul style="list-style-type: none"> <li>- practising technical procedures and tactical actions in competition conditions</li> <li>- the overall practice of the sports disciplines/evidence, in the form of a competition/contest, under regulated conditions</li> <li>- design and execution of freely chosen acrobatic gymnastics exercises</li> <li>- orientation of the preparation for a team position in sports games and practice of specific technical-tactical actions</li> </ul>

**3. Demonstrate appropriate behaviour according to specific rules during the organisation, practice and participation as a spectator in physical education and sport activities**

Fifth grade	Class VI	Seventh grade	Eighth grade
<p><b>3.1. Practice motor activities in assembly, movement and work formations according to their specifics</b></p> <ul style="list-style-type: none"> <li>- integration and acting on command in assembly formations</li> <li>- recognising and keeping the established place in the travelling formations</li> <li>- maintaining order in the execution of the work in the working parties</li> <li>- cooperation with partner in pair formation</li> </ul>	<p><b>3.1. Performing organisational tasks in the performance of gymnastic elements</b></p> <ul style="list-style-type: none"> <li>- fulfilling the role of group leader in the organisation of group practice in acrobatic gymnastics</li> <li>- receiving and providing assistance and support in relation to a colleague in the performance of acrobatic elements with an increased degree of difficulty</li> <li>- to assess the performance of group mates in the execution of elements, lines and the chosen free acrobatic exercise</li> <li>- receiving reported errors of execution and taking measures to correct them</li> </ul>	<p><b>3.1. Performing organisational tasks in carrying out technical procedures and tactical actions specific to the sport game practised</b></p> <ul style="list-style-type: none"> <li>- fulfilling the role of group leader in the organisation of group practice of the sports game practised</li> <li>- assessing the performance of group mates in the execution of technical procedures and tactical actions in the sports game practised</li> <li>- receiving reported errors of execution and taking measures to correct them</li> </ul>	<p><b>3.1. Fulfilling roles in organising and running learning activities, competitions and contests</b></p> <ul style="list-style-type: none"> <li>- fulfilment role of captain team</li> <li>- fulfilling the role of arbitrator</li> <li>- fulfilling the role of timekeeper</li> <li>- fulfilling the role of scorer</li> <li>- fulfilling the role of starter</li> </ul>

<p><b>3.2. Showing respect for the established rules during activities</b></p> <ul style="list-style-type: none"> <li>- strict compliance with the rules laid down in the exercise activities</li> <li>- compliance with the rules laid down for competitions</li> <li>- acceptance of the consequences of breaking rules</li> <li>- compliance with the criteria for determining the winners of competitions</li> </ul>	<p><b>3.2. Application of the regulatory provisions during the activities, subject to their adaptation</b></p> <ul style="list-style-type: none"> <li>- carrying out executions according to the conditions created for adapting the official regulatory provisions</li> <li>- effective use of the possibilities created for adapting official rules</li> <li>- to carry out, over time, executions in conditions as close as possible to the official regulations</li> <li>- observing and reporting breaches of the adapted rules by activity partners</li> </ul>	<p><b>3.2. Enforcement of regulatory requirements during activities</b></p> <ul style="list-style-type: none"> <li>- receiving comments on infringements of the regulation and taking measures to bring the work into line with the regulations</li> <li>- performing executions, technical procedures and tactical actions in accordance with regulations</li> <li>- effective use of the possibilities offered by the regulatory provisions in actions of appeal and defence</li> <li>- to signal and sanction deviations from the regulations as an arbitrator</li> </ul>	<p><b>3.2. Constant application of the rules and regulations during activities, races and competitions</b></p> <ul style="list-style-type: none"> <li>- constant practice during practical activities of the elements, procedures and actions, under the conditions specified by the regulations</li> <li>- application of techniques specific to the sports disciplines studied in competitions and contests, carried out in accordance with the regulations</li> <li>- reporting personal, teammates' and opponents' violations of the rules</li> <li>- referral of deviations from the Regulation; and</li> </ul>
<p><b>Fifth grade</b></p>	<p><b>Class VI</b></p>	<p><b>Seventh grade</b></p>	<p><b>Eighth grade</b></p>
			<p>assessment of penalties imposed by referees in school and out-of-school competitions</p>
<p><b>3.3. Showing an attitude of respect towards partners and opponents in the race</b></p> <ul style="list-style-type: none"> <li>- giving and receiving support and help in carrying out technical elements and procedures from partners</li> <li>- encouraging team-mates during the races</li> <li>- acting in a lawful manner in relation to the opponent during races</li> <li>- congratulating partners and opponents in race-winning situations</li> </ul>	<p><b>3.3. Assessing your own performance in sports activities</b></p> <ul style="list-style-type: none"> <li>- assessing the effectiveness of own actions in achieving the group's positive outcome</li> <li>- assessing the effectiveness of own actions in achieving the group's negative result</li> <li>- analysis of the personal contribution to the overall score of the race/competition</li> <li>- analysis of the causes of the low return on own shares</li> </ul>	<p><b>3.3. Balanced performance in win/win situations in races and competitions</b></p> <ul style="list-style-type: none"> <li>- the unostentatious display, with team-mates, of the satisfaction of victory in races and competitions</li> <li>- to bear defeat in races and competitions with dignity, together with team-mates</li> <li>- congratulating winners in races and competitions, including opponents</li> </ul>	<p><b>3.3. Demonstrate fair play as a player and spectator</b></p> <ul style="list-style-type: none"> <li>- refraining from continuing technical-tactical actions in situations where the opponent is unable to compete at full strength</li> <li>- giving aid and support to an opposing competitor in the event of imminent injury</li> <li>- participation of the members of the competing teams at the start and finish of the competitions</li> <li>- applauding outstanding executions of opponents</li> </ul>



# CONTENTS

Areas of content	Content elements			
	Fifth grade	Class VI	Seventh grade	Eighth grade
1. Organisation of motor activities	<ul style="list-style-type: none"> <li>▪ single-row and double-row in-line assembly formations</li> <li>▪ fundamental position and its derivatives</li> <li>▪ in-line and column alignments</li> <li>▪ returns from the seat</li> <li>▪ gymnastic column training</li> <li>▪ start and stop</li> <li>▪ transitions from one formation to another</li> </ul>	<ul style="list-style-type: none"> <li>▪ moving from column one to column two, three and four and back to the original formation</li> <li>▪ moving from single-row line to 2-3 row line and back to original formation</li> </ul>	-----	-----

<b>2. Harmonious physical development</b>	<ul style="list-style-type: none"> <li>▪ basic and derived positions</li> <li>▪ free exercises, with objects and with a partner, to selectively influence the locomotor system</li> <li>▪ corrective exercises for deficient segmental and postural attitudes</li> <li>▪ exercise complexes for harmonious physical development (free, with handheld objects, with partner, with/without music)</li> <li>▪ exercises to educate breathing and regulate breathing under exertion</li> <li>▪ tools and techniques for determining morphological and functional indicators</li> </ul>	<ul style="list-style-type: none"> <li>▪ correct posture in basic positions and various motor actions</li> <li>▪ correct posture reflex</li> <li>▪ tonicity and trophicity muscles: <ul style="list-style-type: none"> <li>- upper limb</li> <li>- chest</li> <li>- abdomen</li> <li>- lower limbs</li> </ul> </li> <li>▪ mobility and joint stability</li> <li>▪ exercise complexes for harmonious physical development (free, with portable objects, with/without musical background, with partner)</li> <li>▪ frequent deficient posts</li> <li>▪ determinations and diary entries of morphological and functional indices and comparisons with age- and gender-specific reference values</li> <li>▪ knowledge about: <ul style="list-style-type: none"> <li>- frequent deviations from correct body attitude</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ structure and exercise parameters for muscle growth</li> <li>▪ structure and parameters of exercise for fat reduction</li> <li>▪ the correct ratio of height to weight for age and gender</li> <li>▪ knowledge about: <ul style="list-style-type: none"> <li>- dietary factors and types of exercise that contribute to muscle growth</li> <li>- dietary factors, clothing and types of exercise that contribute to the reduction of adipose tissue</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ procedures for determining heart rate and respiratory rate before and after exercise</li> <li>▪ recovery time after exercise, an objective indicator of functional capacity</li> <li>▪ chest perimeters and chest elasticity as determinants of lung ventilation capacity</li> <li>▪ knowledge about: <ul style="list-style-type: none"> <li>- anatomy and physiology of exercise</li> <li>- harmful effects of intensive slimming</li> </ul> </li> <li>▪ knowledge of balanced diet (daily and weekly)</li> </ul>
<b>Areas of content</b>	<b>Content elements</b>			
	<b>Fifth grade</b>	<b>Class VI</b>	<b>Seventh grade</b>	<b>Eighth grade</b>
		the causes that produce them and the means to prevent them from occurring		

3. Capacitymotor	LOCOMOTION SKILLS	LOCOMOTION SKILLS	LOCOMOTION SKILLS	LOCOMOTION SKILLS
	<p><i>a) basic:</i>  1. Mersul  - on the tips  - squat  - with a waddling step  - with added step  2. Running  ▪ running step:  - in different directions  - with obstacle courses  - with changes of direction  3. Jumping  ▪ with detachment from one and on both feet:  - on the spot  - away  - on and off objects/appliances  <i>b) combined:</i>  1. Climbing  - by grasping and stepping on the machine,  on the go  - by gripping and rolling on the front of the body  2. Traction  - on the gym bench  - in pairs, from standing apart  3. Climbing-down  - fixed scale  - on an inclined plane  4. The slum  - on knees and elbows</p>	<p><i>a) basic:</i>  1. Mersul  - with added step  - cross-step  2. Running  - in pairs and groups  - with changes of direction  - with detour and crossing over obstacles  3. Jumping  successive jumps on the spot and with displacement - in different directions (forward, backward, sideways)  - over hurdles  - at the rope  <i>b) combined:</i>  1. Climbing  - by grasping and stepping on the machine, from light running  - by gripping and rolling on the front part of the body on apparatus of variable heights  2. Traction  - on the incline gym bench  - in pairs, from different positions  3. Climbing-down  - fixed scale  - on an inclined plane  4. The slum  - on knees and elbows, with object carrying</p>	<p>▪ actions combined: mers - running - jumping</p> <p>▪ combined actions: climbing - climbing - pulling - crawling</p>	<p>▪ combined actions: basic locomotion skills with combined locomotion skills</p>
<b>Areas of content</b>	<b>Content elements</b>			
	<b>Fifth grade</b>	<b>Class VI</b>	<b>Seventh grade</b>	<b>Eighth grade</b>

	<p>a) propulsion type: throwing, rolling, tossing; kicking with hand, foot, [redacted], paddle, etc.)</p> <p>b) absorption type: clamping with a hand or both</p> <p>a) axial type: bending, stretching, twist, turn, swing</p> <p>b) static or dynamic postures: [redacted]</p> <p>c) starters, slots</p> <p><b>1. Speed</b></p> <ul style="list-style-type: none"> <li>▪ speed of reaction to stimuli: <ul style="list-style-type: none"> <li>- visual [redacted]</li> <li>- tactile</li> </ul> </li> <li>▪ speed of execution: <ul style="list-style-type: none"> <li>- in simple motor actions</li> <li>▪ travel speed: <ul style="list-style-type: none"> <li>- in a straight line</li> <li>- with changes of direction</li> </ul> </li> <li>▪ speed - under coordinated conditions</li> </ul> </li> </ul>	<p>a) propulsion type: launching, rolling, volleying, [redacted] with hand, foot, various objects (racket, paddle, club)</p> <p>b) absorption type: one-handed or two-handed grip, glove grip</p> <p>a) axial type, specific to sports disciplines</p> <p>b) static or dynamic postures [redacted]</p> <p><b>1. Speed</b></p> <ul style="list-style-type: none"> <li>▪ reaction speed: <ul style="list-style-type: none"> <li>- to different stimuli [redacted]</li> <li>- single and repeated motor acts and actions (repetition speed)</li> <li>▪ travel speed: <ul style="list-style-type: none"> <li>- over varying distances and directions</li> <li>- speed - under coordinated conditions</li> </ul> </li> <li>▪ knowledge about: <ul style="list-style-type: none"> <li>- characteristics of speed development exercise</li> <li>- the average values of speed indicators, corresponding to age and gender</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Combined actions: throwing, [redacted]</li> <li>▪ locomotion, handling and stability skills practised in practical courses and relays</li> </ul> <p><b>1. Speed</b></p> <ul style="list-style-type: none"> <li>▪ reaction speed: <ul style="list-style-type: none"> <li>- to different stimuli, in relation to [redacted]</li> <li>▪ speed of execution: <ul style="list-style-type: none"> <li>- single and repeated motor acts and actions (repetition speed) of motor acts and actions with portable objects</li> <li>▪ travel speed: <ul style="list-style-type: none"> <li>- over varying distances and directions</li> <li>- with the handling of objects</li> </ul> </li> <li>▪ knowledge about: <ul style="list-style-type: none"> <li>- characteristics of exercises for speed development</li> <li>- average values of speed indicators, corresponding to age/gender</li> </ul> </li> <li>▪ sports information</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ application courses and relays [redacted]</li> <li>▪ a competition [redacted]</li> </ul> <p><b>1. Speed</b></p> <ul style="list-style-type: none"> <li>▪ speed of reaction and execution in complex motor actions [redacted]</li> <li>▪ progressive [redacted]</li> <li>▪ speed in conditions varied</li> <li>▪ speed of reaction, execution and movement under coordinated conditions</li> <li>▪ speed - under coordination</li> <li>▪ travel speed under endurance conditions</li> <li>▪ sports information</li> </ul>
<b>Areas of content</b>	<b>Content elements</b>			
	<b>Fifth grade</b>	<b>Class VI</b>	<b>Seventh grade</b>	<b>Eighth grade</b>

	<p><b>2. Skill (coordination skills)</b></p> <ul style="list-style-type: none"> <li>▪ coordination of the action of the segments in relation to the body</li> <li>▪ handling objects: <ul style="list-style-type: none"> <li>- individual</li> <li>- with partners</li> </ul> </li> <li>▪ balance: <ul style="list-style-type: none"> <li>- in static positions</li> <li>- moving over narrow surfaces at different heights</li> <li>- moving over narrow areas, carrying/ depositing/ picking up objects</li> </ul> </li> </ul> <p><b>3. Strength</b></p> <ul style="list-style-type: none"> <li>▪ segmental dynamic force</li> <li>▪ dynamic segmental force in the resistance mode</li> </ul>	<p><b>2. Skill (coordination skills)</b></p> <ul style="list-style-type: none"> <li>▪ coordinating the actions of body segments and the body as a whole, in space and time</li> <li>▪ coordination of motor actions in relation to partners and opponents</li> <li>▪ handling objects, from a standing position, in ambidextrous conditions (manual, foot)</li> <li>▪ balance: <ul style="list-style-type: none"> <li>- maintenance, over progressively increasing durations, of static positions (with reduced support bases, on the ground and on surfaces of variable heights)</li> <li>- free, balanced, free-standing and carrying movements on narrow, raised, horizontal and inclined surfaces</li> </ul> </li> </ul> <p><b>3. Strength</b></p> <ul style="list-style-type: none"> <li>▪ explosive force</li> <li>▪ force dynamic (isotonic) segmental</li> <li>▪ dynamic segmental force in the resistance mode</li> <li>▪ knowledge and information about: <ul style="list-style-type: none"> <li>- characteristics of the exercise for strength development</li> <li>- mean values of age- and gender-specific indicators of strength of the main muscle segments</li> </ul> </li> </ul>	<p><b>2. Skill (coordination skills)</b></p> <ul style="list-style-type: none"> <li>▪ coordination of body actions in space and time</li> <li>▪ handling of objects, while moving, in ambidextrous conditions (manual, foot)</li> <li>▪ balance: <ul style="list-style-type: none"> <li>- maintenance, over progressively increasing periods of time, of static positions (with reduced support bases, on the ground and on surfaces of variable heights), with support from objects</li> <li>- free, balanced and carrying movements on narrow and raised, horizontal and inclined surfaces, individually and in pairs</li> </ul> </li> </ul> <p><b>3. Strength</b></p> <ul style="list-style-type: none"> <li>▪ explosive force</li> <li>▪ strength in resistance mode</li> <li>▪ knowledge about: <ul style="list-style-type: none"> <li>- characteristics of strength development exercise</li> <li>- mean values of age- and gender-specific indicators of strength of the main muscle segments</li> </ul> </li> <li>▪ sports information</li> </ul>	<p><b>2. Skill (coordination skills)</b></p> <ul style="list-style-type: none"> <li>▪ orientation of the body in space and segmental coordination <ul style="list-style-type: none"> <li>▪ specific skills of the probes and sports disciplines taught</li> </ul> </li> <li>▪ balance <ul style="list-style-type: none"> <li>- maintaining static positions (with progressively reduced support bases, on surfaces of varying heights), with object handling</li> <li>- free, balanced movements with handling of objects, on narrow raised, horizontal and inclined surfaces, individually and in pairs</li> </ul> </li> </ul> <p><b>3. Strength</b></p> <ul style="list-style-type: none"> <li>▪ segmental dynamic force</li> <li>▪ detained</li> <li>▪ segmental force in resistance mode</li> <li>▪ force specific of evidence and sports disciplines taught</li> <li>▪ knowledge about: <ul style="list-style-type: none"> <li>- mean values of the main force manifestation indicators muscle groups, specific to age and gender</li> <li>- methodical procedures for isotonic strength development</li> </ul> </li> <li>▪ sports information</li> </ul>
<b>Areas of</b>	<b>Content elements</b>			

content	Fifth grade	Class VI	Seventh grade	Eighth grade
	<p><b>4. Resistance</b></p> <ul style="list-style-type: none"> <li>cardio-respiratory endurance to aerobic efforts</li> <li>local muscle strength</li> </ul> <p><b>5. Combined driving qualities</b></p> <ul style="list-style-type: none"> <li>according to precizărilor by each motor quality</li> </ul>	<p><b>4. Resistance</b></p> <ul style="list-style-type: none"> <li>cardio-respiratory endurance to aerobic efforts</li> <li>local muscle strength</li> <li>knowledge about: characteristics of resistance training exercise</li> <li>age- and gender-specific mean values of resistance indicators</li> </ul> <p><b>5. Combined driving qualities</b></p> <ul style="list-style-type: none"> <li>as specified for each motor quality</li> </ul>	<p><b>4. Resistance</b></p> <ul style="list-style-type: none"> <li>cardio-respiratory endurance to aerobic efforts</li> <li>local muscle strength</li> <li>cardio-respiratory endurance to variable efforts</li> <li>local muscle strength</li> <li>strength under force</li> <li>knowledge about: characteristics of exercise for strength development</li> <li>age- and gender-specific mean values of resistance indicators</li> <li>sports information</li> </ul> <p><b>5. Combined driving qualities</b></p> <ul style="list-style-type: none"> <li>as specified for each motor quality</li> </ul>	<p><b>4. Resistance</b></p> <ul style="list-style-type: none"> <li>cardio-respiratory endurance to aerobic efforts</li> <li>cardio-respiratory endurance at mixed efforts</li> <li>local muscle strength;</li> <li>strength under force</li> <li>sample specific strength and sports disciplines taught</li> <li>knowledge and information about age- and gender-specific mean values of resistance indicators</li> <li>sports information</li> </ul> <p><b>5. Combined driving qualities</b></p> <ul style="list-style-type: none"> <li>as specified for each motor quality</li> </ul>
<b>4. Sports disciplines</b>	<p><b>ATLETISM</b></p> <p><b>1. Running</b></p> <ul style="list-style-type: none"> <li>elements of <i>running school</i></li> <li>- running with ankle game</li> <li>- running with knees up</li> <li>- leg swing running back and forth</li> <li>speed running:</li> <li>- accelerating runner step</li> <li>- bottom start and launch from the start</li> <li>endurance running</li> <li>step runner launched by semi-fund</li> </ul> <p><b>2. Jumping</b></p> <ul style="list-style-type: none"> <li>elements from the <i>school of skipping</i>:</li> <li>- the skipped step, the hopped step</li> <li>long jump with 1½ steps in</li> </ul>	<p><b>ATLETISM</b></p> <p><b>1. Running</b></p> <ul style="list-style-type: none"> <li>elements of <i>running school</i></li> <li>exercise variations from running school</li> <li>speed running:</li> <li>- the running step launched by speed</li> <li>- bottom start and launch from the start</li> <li>knowledge about: the wrong start</li> <li>Compliance lane running lane</li> <li>speed running events in official competitions</li> <li>endurance running: top start and launch from start</li> </ul>	<p><b>ATLETICS</b></p> <p><b>1. Running</b></p> <ul style="list-style-type: none"> <li>elements of <i>running school</i></li> <li>variations and combinations of running school exercises</li> <li>speed running:</li> <li>- with bottom start in the form of race</li> <li>- the finish</li> <li>knowledge about: the wrong start</li> <li>- respect of the running lane</li> <li>endurance running: coordinating your breathing with the rhythm of your running steps</li> <li>- running on varied terrain</li> <li>knowledge about: the wrong start</li> </ul>	<p><b>ATLETISM</b></p> <p><b>1. Running</b></p> <ul style="list-style-type: none"> <li>10-60 m sprint race with a start from the bottom, in the form of a competition</li> <li>endurance running: over distances of 400-1000 m, in the form of a competition</li> <li>running on varied terrain</li> <li>running with pass over obstacles:</li> <li>- obstacle attack</li> <li>- pace between obstacles</li> <li>knowledge about: refereeing, organisation and leadership in running events</li> <li>- cross-country running events in official competitions</li> </ul>

Areas of content	Content elements			
	Fifth grade	Class VI	Seventh grade	Eighth grade
	<p>air: 3-5 stride elan, free beat and detachment</p> <p><b>3. Throws</b></p> <ul style="list-style-type: none"> <li>▪ elements from the <b><i>school of throwing:</i></b></li> <li>- one-armed spinning throw <ul style="list-style-type: none"> <li>▪ throwing the oar ball, from a distance, on the spot</li> </ul> </li> <li>▪ knowledge about: <ul style="list-style-type: none"> <li>- characteristics of the oar ball</li> <li>- crossing the throwing line</li> <li>- Compliance sector throwing</li> <li>- measuring the length of the throw</li> </ul> </li> <li>▪ sports information</li> </ul>	<ul style="list-style-type: none"> <li>- coordinating your breathing with the rhythm of your running steps</li> <li>- running on varied terrain <ul style="list-style-type: none"> <li>▪ knowledge about: <ul style="list-style-type: none"> <li>- the wrong start</li> <li>- overtaking the opponent</li> </ul> </li> </ul> </li> <li>- foot contact with the ground, in depending on the nature of the land <ul style="list-style-type: none"> <li>▪ sports information</li> </ul> </li> </ul> <p><b>2. Jumping</b></p> <ul style="list-style-type: none"> <li>▪ elements from the <b><i>school of skipping:</i></b></li> <li>- the skipped step, the hopped step <ul style="list-style-type: none"> <li>▪ long jump with 1½ steps inair: <ul style="list-style-type: none"> <li>- 7-9 step elk</li> </ul> </li> <li>- beating in specified area</li> <li>- detachment <ul style="list-style-type: none"> <li>▪ knowledge about: <ul style="list-style-type: none"> <li>- exceeding the threshold (the beating/detachment)</li> <li>- measuring the length of the jump</li> </ul> </li> <li>▪ high jump with walking: <ul style="list-style-type: none"> <li>- 5 - 7 step elk</li> </ul> </li> <li>- fight in area marked, take-off and landing <ul style="list-style-type: none"> <li>▪ sports information</li> </ul> </li> </ul> </li> </ul> <p><b>3. Throws</b></p> <ul style="list-style-type: none"> <li>▪ elements from the <b><i>school of throwing:</i></b></li> <li>- throwing type <b>throwing</b>, with a arm <ul style="list-style-type: none"> <li>▪ throwing the oar ball from a distance</li> <li>▪ knowledge about: <ul style="list-style-type: none"> <li>- successful shooting</li> </ul> </li> </ul> </li> </ul> </li></ul>	<ul style="list-style-type: none"> <li>- overtaking the opponent</li> <li>- semi-distance running events in official competitions <ul style="list-style-type: none"> <li>▪ sports information</li> </ul> </li> </ul> <p><b>2. Jumping</b></p> <ul style="list-style-type: none"> <li>▪ elements from the <b><i>school of skipping:</i></b></li> <li>- jumping over low obstacles <ul style="list-style-type: none"> <li>▪ long jump with 1½ steps inair</li> </ul> </li> <li>- medium elk <ul style="list-style-type: none"> <li>▪ knowledge about: <ul style="list-style-type: none"> <li>- overcoming threshold (area of the batting range)</li> <li>- measuring the length of the jump</li> </ul> </li> <li>▪ high jump with walking: <ul style="list-style-type: none"> <li>- 7- to 9-step moose <ul style="list-style-type: none"> <li>▪ sports information</li> </ul> </li> </ul> </li> </ul> <p><b>3. Throws</b></p> <ul style="list-style-type: none"> <li>▪ elements from the <b><i>school of throwing:</i></b></li> <li>- one-armed <b>spinning-type</b> throw <ul style="list-style-type: none"> <li>▪ throwing the oar ball: <ul style="list-style-type: none"> <li>- with added step/cross step</li> <li>- with medium elk, remote</li> </ul> </li> <li>- moose</li> <li>- blocking <ul style="list-style-type: none"> <li>▪ knowledge about: <ul style="list-style-type: none"> <li>- successful shot</li> <li>- number of throws in the competition</li> <li>- measuring the length of the throw</li> </ul> </li> <li>▪ sports information</li> </ul> </li> </ul> </li> </ul> </li></ul>	<ul style="list-style-type: none"> <li>▪ sports information</li> </ul> <p><b>2. Jumping</b></p> <ul style="list-style-type: none"> <li>▪ elements from the <b><i>school of skipping:</i></b></li> <li>- multi-salt <ul style="list-style-type: none"> <li>▪ long jump with 1½ steps inair: <ul style="list-style-type: none"> <li>- elk calibration</li> </ul> </li> <li>- flight and landing <ul style="list-style-type: none"> <li>▪ high jump with walking: <ul style="list-style-type: none"> <li>- elk calibration</li> <li>- the beating, the taking off, the flying and landing <ul style="list-style-type: none"> <li>▪ high jump through other proceed</li> <li>▪ knowledge of refereeing, organisation and leadership in the conduct of the events</li> </ul> </li> </ul> </li> <li>▪ sports information</li> </ul> </li> </ul> <p><b>3. Throws</b></p> <ul style="list-style-type: none"> <li>▪ elements from the <b><i>school of throwing:</i></b></li> <li>▪ one-handed and two-handed throwing, throwing, pushing and throwing</li> <li>▪ throwing the oar ball with moose, remote <ul style="list-style-type: none"> <li>▪ knowledge of refereeing, organisation and leadership in the conduct of the event</li> </ul> </li> <li>▪ sports information</li> </ul> </li></ul>

		<ul style="list-style-type: none"> <li>- number of throws in the competition <ul style="list-style-type: none"> <li>▪ sports information</li> </ul> </li> </ul>		
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<b>Areas of content</b>	<b>Content elements</b>			
	<b>Fifth grade</b>	<b>Class VI</b>	<b>Seventh grade</b>	<b>Eighth grade</b>



	<p><b>GYMNASTICS</b></p> <ul style="list-style-type: none"> <li>▪ static elements: <ul style="list-style-type: none"> <li>- balance on one knee</li> <li>- one-legged balance</li> <li>- half-house</li> <li>- lower bridge</li> <li>- sitting on the shoulder blades</li> <li>- standing on the head with support (boys)</li> <li>- rope (girls)</li> </ul> </li> <li>▪ dynamic elements: <ul style="list-style-type: none"> <li>- runs</li> <li>- rolling back and forth from crouching in a crouch</li> <li>- rolling back out of a crouch far away</li> <li>- side tipping (side wheel)</li> </ul> </li> <li>▪ binding variants of acrobatic elements learned</li> </ul>	<p><b>GYMNASTICS</b></p> <ul style="list-style-type: none"> <li>▪ static elements: <ul style="list-style-type: none"> <li>- lateral balance</li> <li>- upper bridge - girls</li> <li>- standing on your head - boys</li> <li>- standing on hands</li> </ul> </li> <li>▪ dynamic elements: <ul style="list-style-type: none"> <li>- runs</li> <li>- rolling back from a crouch to a squat and back from a squat to a squat</li> <li>- Forward roll from crouch in remote</li> <li>- răsturnare sideways (side wheel)</li> </ul> </li> <li>▪ gymnastic elements and combinations <ul style="list-style-type: none"> <li>▪ acrobatic and gymnastic combinations (including elements learned)</li> <li>▪ variant from lines acrobatic (comprising the elements learned)</li> </ul> </li> <li>▪ knowledge of performance appraisal criteria</li> <li>▪ sports information</li> </ul>	<p><b>GYMNASTICS</b></p> <ul style="list-style-type: none"> <li>▪ static elements: <ul style="list-style-type: none"> <li>- upper bridge - girls</li> <li>- standing on your head - boys</li> <li>- half-house</li> <li>- cumpene (variant)</li> <li>- sitting on hands - rolling</li> <li>- rope (girls)</li> </ul> </li> <li>▪ dynamic elements: <ul style="list-style-type: none"> <li>- rolling forward variants)</li> <li>- side tipping with turning (variants)</li> </ul> </li> <li>▪ variant from lines acrobatic (comprising the elements learned) <ul style="list-style-type: none"> <li>▪ knowledge of the criteria for performance appraisal</li> </ul> </li> <li>▪ sports information</li> </ul>	<p><b>GYMNASTICS</b></p> <ul style="list-style-type: none"> <li>▪ static and dynamic elements: chaining of elements learned in previous classes in acrobatic lines</li> <li>▪ variations of ground exercises with freely chosen elements</li> <li>▪ sports information</li> </ul>
	<p><b>MACHINE JUMPING</b></p> <ul style="list-style-type: none"> <li>▪ squat jump on the gymnastic cushion, placed transversely, followed by descent by straight jump</li> <li>▪ knowledge about: criteria for evaluating a jump</li> <li>▪ sports information</li> </ul>	<p><b>MACHINE JUMPING</b></p> <ul style="list-style-type: none"> <li>▪ jump, in a crouch, on the near end of the crate, lying longitudinally, followed by a roll in a crouch</li> <li>▪ knowledge of the criteria for judging a jump</li> <li>▪ sports information</li> </ul>	<p><b>MACHINE JUMPING</b></p> <ul style="list-style-type: none"> <li>▪ squat jump on a longitudinally positioned gymnastic crate jump in a wide stance over the goat</li> <li>▪ knowledge of the criteria for judging jumps</li> <li>▪ sports information</li> </ul>	<p><b>MACHINE JUMPING</b></p> <ul style="list-style-type: none"> <li>▪ jumping and rolling, with legs outstretched and close together, on the gymnastic cushion, placed lengthways</li> <li>▪ jumping in far support over goat</li> <li>▪ knowledge of refereeing, organisation and leadership in the conduct of gymnastics competitions</li> <li>▪ sports information</li> </ul>
<b>Areas of content</b>	<b>Content elements</b>			
	<b>Fifth grade</b>	<b>Class VI</b>	<b>Seventh grade</b>	<b>Eighth grade</b>

	SPORTS GAMES	SPORTS GAMES	SPORTS GAMES	SPORTS GAMES
	<p><b>1. BASKETBALL Year I of training</b></p> <ul style="list-style-type: none"> <li>▪ catching, holding, protecting and passing the ball with two hands from the chest, from theseat and followed by displacement</li> <li>▪ stopping at a time</li> <li>▪ dribbling</li> <li>▪ shooting from the spot with one/two hands</li> <li>▪ Pivoting</li> <li>▪ fundamental position in defence</li> <li>▪ movements with added steps</li> <li>▪ arm work and the game of standing</li> <li>▪ demarcation</li> <li>▪ bookmark</li> <li>▪ overcoming</li> <li>▪ defence "man at man" in the vicinity of their own basket</li> <li>▪ horseshoe" attack settlement</li> <li>▪ tactical "give and go" action</li> <li>▪ themed game variations</li> <li>▪ knowledge of the rules of the game: fouling, passing, double dribbling</li> <li>▪ sports information</li> </ul> <p><b>2. FOOTBALL Year I of training</b></p> <ul style="list-style-type: none"> <li>▪ kicking the ball with the inside of the foot, from the spot and from movement</li> <li>▪ shooting on goal, from the spot and from the run</li> <li>▪ taking the ball with the inside of the foot</li> </ul>	<p><b>1. BASKETBALL Year I of training</b></p> <ul style="list-style-type: none"> <li>▪ catching, holding, protectingand passing the ball with two hands from the chest, from the spot and followed by movement</li> <li>▪ stopping at a time</li> <li>▪ dribbling</li> <li>▪ one/two tosshands off</li> <li>▪ Pivoting</li> <li>▪ fundamental position in defence</li> <li>▪ movements with added steps</li> <li>▪ arm work and the game of standing</li> <li>▪ demarcation</li> <li>▪ bookmark</li> <li>▪ overcoming</li> <li>▪ defence "man at man" in the vicinity of their own basket</li> <li>▪ horseshoe" settlement in attack</li> <li>▪ tactical "give and go" action</li> <li>▪ themed game variations</li> <li>▪ knowledge of the rules of the game: fouling, passing, double dribbling</li> <li>▪ sports information</li> </ul> <p><b>Second year of training</b></p> <ul style="list-style-type: none"> <li>▪ catching, holding, protecting and passing the ball with two hands from the chest, from the spot and from movement</li> <li>▪ two-stage stop</li> <li>▪ free pivoting and in relation toan opponent</li> <li>▪ structures of specific displacements in fundamental positions in</li> </ul>	<p><b>1. BASKETBALL Second year of training</b></p> <ul style="list-style-type: none"> <li>▪ catching, holding, protecting and passing the ball with two hands from the chest, from the spot and followed by from the displacement</li> <li>▪ free pivoting and in relation toan opponent</li> <li>▪ specific movement structures in fundamental positions, defence and attack</li> <li>▪ dribble shooting</li> <li>▪ marking the opponent with and without ball</li> <li>▪ demarcation</li> <li>▪ penetration</li> <li>▪ overcoming</li> <li>▪ tactical "give and go" action</li> <li>▪ man-to-man defence system in own half of the field</li> <li>▪ tactical actions specific to attacking with a pivot player</li> <li>▪ themed game variations</li> <li>▪ knowledge of the rules of the game: land, duration of attack</li> <li>▪ sports information</li> </ul> <p><b>2. FOOTBALL Second year of training</b></p> <ul style="list-style-type: none"> <li>▪ hitting the ball with the full shoe, the inner shoe and the outer shoe</li> <li>▪ ball handling in relation toan opponent</li> <li>▪ head butting the ball from the spot and away</li> </ul>	<p><b>1. BASKETBALL Third year of training</b></p> <ul style="list-style-type: none"> <li>▪ technical-tactical actions specific to the known attack system</li> <li>▪ specific technical-tactical actions known defence system</li> <li>▪ themed game variants with reduced staff on reducedterrain</li> <li>▪ integration of technical-tactical actions in the bilateral game, under regulatory conditions</li> <li>▪ knowledge of refereeing, organisation and conduct of the game of basketball</li> <li>▪ sports information</li> </ul> <p><b>2. FOOTBALL Third year of training</b></p> <ul style="list-style-type: none"> <li>▪ technical-tactical actions specific to the known attack system</li> <li>▪ specific technical-tactical actions known defence system</li> <li>▪ themed game variants with reduced staff on reducedterrain</li> <li>▪ integration of technical-tactical actions in the bilateral game, under regulatory conditions</li> <li>▪ knowledge of refereeing, organisation and management of the game of football</li> <li>▪ sports information</li> </ul> <p><b>3. HANDBAL Third year of training</b></p>

Areas of content	Content elements			
	Fifth grade	Class VI	Seventh grade	Eighth grade
	<ul style="list-style-type: none"> <li>▪ ball handling</li> <li>▪ putting the ball back into play from the edge</li> <li>▪ dispossessing your opponent of front ball</li> <li>▪ technical procedures specific to the goalkeeper</li> <li>▪ 1-3-2 system of play</li> <li>▪ marking and demarcation</li> <li>▪ overcoming</li> <li>▪ themed game variations</li> <li>▪ knowledge of the rules of the game of football on a reduced pitch: foul, foul, throw-in</li> <li>▪ sports information</li> </ul> <p><b>3. HANDBAL Year I of training</b></p> <ul style="list-style-type: none"> <li>▪ pass thrown with one hand over the shoulder: from the spot and from the move</li> <li>▪ two-handed grip from place and away</li> <li>▪ simple dribbling</li> <li>▪ throwing at the goal from the spot</li> <li>▪ throwing at the goal with steps</li> <li>▪ add</li> <li>▪ throwing at the goal from running</li> <li>▪ fundamental position</li> <li>▪ specific technical procedures</li> <li>▪ the goalkeeper</li> <li>▪ the ball being put back into play by</li> </ul> <p>port</p> <ul style="list-style-type: none"> <li>▪ overcoming</li> <li>▪ folding</li> </ul>	<p>defence and attack</p> <ul style="list-style-type: none"> <li>▪ dribble shooting</li> <li>▪ marking the opponent with and without ball</li> <li>▪ demarcation</li> <li>▪ penetration</li> <li>▪ overcoming</li> <li>▪ collective tactical action "give and Go."</li> <li>▪ man-to-man defence system in own half of the field</li> <li>▪ settlement-specific tactical actions on the attack</li> <li>▪ themed game variations</li> <li>▪ knowledge of the rules of the game:</li> <li>land, duration of attack</li> <li>▪ sports information</li> </ul> <p><b>2. FOOTBALL Year I of training</b></p> <ul style="list-style-type: none"> <li>▪ kicking the ball with the inside of the foot from the spot and from movement</li> <li>▪ shot on goal, from the spot and from</li> <li>travel</li> <li>▪ catching the ball with the inside of the foot</li> <li>▪ ball handling</li> <li>▪ putting the ball back into play from the edge</li> <li>▪ head butting the ball from the spot</li> <li>▪ dispossessing your opponent of front ball</li> <li>▪ proceed technical specific</li> </ul>	<ul style="list-style-type: none"> <li>▪ ball pick-up with the foot and chest</li> <li>▪ putting the ball back into play from corner of the field (corner)</li> <li>▪ marking the opponent with the ball and without the ball</li> <li>▪ demarcation</li> <li>▪ penetration</li> <li>▪ collective tactical action "one-two"</li> <li>▪ interception</li> <li>▪ technical procedures specific to the goalkeeper</li> <li>▪ man-to-man defence with respect to specific post areas</li> <li>▪ themed game variations</li> <li>▪ knowledge and information on the rules of the game: corners, changing players, penalty kicks</li> <li>▪ sports information</li> </ul> <p><b>3. HANDBAL</b></p> <p><b>Second year of training</b></p> <ul style="list-style-type: none"> <li>▪ pass thrown with one hand from over the shoulder, from the seat and from the move, in different directions</li> <li>▪ multiple dribbling</li> <li>▪ shooting at goal from 7 m</li> <li>▪ cross-step shooting at the goal</li> <li>▪ throwing at the goal from running</li> <li>▪ jump shot</li> <li>▪ specific movements in fundamental positions in attack and defence</li> <li>▪ blocking balls thrown towards</li> </ul>	<ul style="list-style-type: none"> <li>▪ technical-tactical actions specific to the known attack system</li> <li>specific technical-tactical actions</li> <li>known defence system <ul style="list-style-type: none"> <li>▪ themed game variants with reduced staff on reduced terrain</li> </ul> </li> <li>▪ integration of technical-tactical actions in the bilateral game, under regulatory conditions</li> <li>▪ knowledge of refereeing, organisation and management of the game of handball</li> <li>▪ sports information</li> </ul> <p><b>4. OINĂ</b></p> <p><b>Third year of training</b></p> <ul style="list-style-type: none"> <li>▪ holding and protecting the oar ball with one and two hands</li> <li>▪ catching the oar ball on the spot, jumping, walking and running</li> <li>▪ throwing the oar ball for batting, passing and "aiming"</li> <li>▪ passing the oar ball from over the shoulder, over the head, from the elbow joint, from the balance</li> <li>▪ serving the oina ball standing with the torso slightly bent forward, standing with the knees bent (from a crouch)</li> <li>▪ batting the ball with the stick</li> <li>▪ the middle finger</li> <li>▪ targeting the opponent when he is in the box, triangle, caught in the middle on the spot or running</li> </ul>

	<ul style="list-style-type: none"> <li>▪ the mark of the opponent in ball possession and clearance</li> </ul>	<ul style="list-style-type: none"> <li>to the goalkeeper</li> <li>▪ 1-3-2 system of play</li> <li>▪ marking and demarcation</li> </ul>		
<b>Areas of content</b>	<b>Content elements</b>			
	<b>Fifth grade</b>	<b>Class VI</b>	<b>Seventh grade</b>	<b>Eighth grade</b>

	<ul style="list-style-type: none"> <li>▪ interception</li> <li>▪ the half-circle attack system</li> <li>▪ sitting in defence in the system 6:0</li> <li>▪ themed game variations</li> <li>▪ knowledge of the rules of the game: passing, fouling, double dribbling</li> <li>▪ sports information</li> </ul> <p><b>4. OINÄ</b> <b>Year I of training</b></p> <ul style="list-style-type: none"> <li>▪ holding and protecting the oar ball with one and two hands</li> <li>▪ catching the oar ball on the spot, jumping, walking and running</li> <li>▪ throwing the oar ball for batting, passing and "aiming"</li> <li>▪ passing the oar ball over the shoulder, over the head</li> <li>▪ serving the oina ball standing with the torso slightly bent forward</li> <li>▪ batting the ball with the stick</li> <li>▪ targeting the opponent when he is in the box or triangle on the spot or on the run</li> <li>▪ running through colour</li> <li>▪ blocking (stopping the ball)</li> <li>▪ individual defence</li> <li>▪ entry into the game</li> <li>▪ seating</li> <li>▪ knowledge of regulation of the game</li> </ul>	<ul style="list-style-type: none"> <li>▪ overcoming</li> <li>▪ interception</li> <li>▪ themed game variations</li> <li>▪ knowledge of the rules of the game of football on a reduced pitch: foul, foul, throw-in</li> <li>▪ sports information</li> </ul> <p><b>Second year of training</b></p> <ul style="list-style-type: none"> <li>▪ hitting the ball with the full shoe, with the inside shoe</li> <li>▪ hitting the ball with the outside shoe</li> <li>▪ ball handling in relation to an opponent</li> <li>▪ head butting the ball from the spot</li> <li>▪ hitting the ball with head, out of position</li> <li>▪ kicking the ball</li> <li>▪ putting the ball back into play from corner of the field (corner)</li> <li>▪ dispossessing the opponent from front and side</li> <li>▪ marking the opponent with the ball and without the ball and the demarcation</li> <li>▪ penetration</li> <li>▪ collective tactical action "one-two"</li> <li>▪ interception</li> <li>▪ technical procedures specific to the goalkeeper</li> <li>▪ man-to-man defence with respect to specific post areas</li> <li>▪ themed game variations</li> <li>▪ knowledge of the rules of the game: corners, changing players, penalty kicks</li> <li>▪ sports information</li> </ul>	<p>gate</p> <ul style="list-style-type: none"> <li>▪ marking the opponent with and without</li> <li>▪ demarcation</li> <li>▪ penetration</li> <li>▪ overcoming</li> <li>▪ the ball being put back into play by port</li> <li>▪ interception</li> <li>▪ proceed technical specific to the goalkeeper</li> <li>▪ single-pivot attack system</li> <li>▪ direct counterattack</li> <li>▪ counterattack with intermediary</li> <li>▪ tactical actions in the 6:0 defence system</li> <li>▪ themed game variations</li> <li>▪ knowledge and information on the rules of the game: defending in the half-court, stepping over the half-court in attack, foot</li> <li>▪ sports information</li> </ul> <p><b>4. OINÄ</b> <b>Second year of training</b></p> <ul style="list-style-type: none"> <li>▪ holding and protecting the oar ball with one and two hands</li> <li>▪ catching the oar ball on the spot, jumping, walking and running</li> <li>▪ throwing the oar ball for batting, passing and "aiming"</li> <li>▪ passing the oar ball from over the shoulder, over the head, from the elbow joint</li> <li>▪ serving the oina ball standing with the torso slightly</li> </ul>	<ul style="list-style-type: none"> <li>▪ running and stopping through colour</li> <li>▪ blocking (stopping the ball)</li> <li>▪ individual defence</li> <li>▪ entry into the game</li> <li>▪ seating</li> <li>▪ play actions on the court: catching and passing the ball in triangle and square "aiming" the opponent</li> <li>▪ integration of technical-tactical actions in the bilateral game</li> <li>▪ knowledge of refereeing, organisation and conduct of the game of oar</li> <li>▪ knowledge of regulation of the game</li> </ul> <p><b>5. RUGBY-TAG</b> <b>Third year of training</b></p> <ul style="list-style-type: none"> <li>▪ cross and skip passes</li> <li>▪ pass with half turn</li> <li>▪ over-the-shoulder pass and hook pass</li> <li>▪ back pass</li> <li>▪ change of direction with skip step</li> <li>▪ fenta</li> <li>▪ Pivoting</li> <li>▪ fundamental positions in attack and defence</li> <li>▪ cross-step direction change</li> <li>▪ change of direction with added pitch</li> <li>▪ interception</li> <li>▪ closing the angle of defence</li> <li>▪ collective technical-tactical actions</li> </ul>
<b>Areas of</b>	<b>Content elements</b>			

content	Fifth grade	Class VI	Seventh grade	Eighth grade
	<p><b>5. RUGBY-TAG Year I of training</b></p> <ul style="list-style-type: none"> <li>one-handed and two-handed ballooning</li> <li>two-handed balloon catch, on the spot and on the move</li> <li>picking up the balloon from the ground</li> <li>pass on the spot and run</li> <li>change of direction</li> <li>fenta</li> <li>knowledge and accommodation of</li> </ul> <p>rugby-tag belt</p> <ul style="list-style-type: none"> <li>fundamental position in defence</li> <li>handling and pulling tag belt</li> <li>technical completion procedures</li> <li>technical procedures for penetration</li> <li>tactical overtaking actions</li> <li>collective and individual tactical actions including technical procedures learned</li> <li>themed game variations</li> <li>knowledge and information on the rules of the game</li> </ul> <p><b>6. VOLLEYBALL Year I of training</b></p> <ul style="list-style-type: none"> <li>two-handed pass from the top, preceded by movement and stop facing the direction of ball transmission</li> <li>organisation of the three strikes</li> <li>variations on the theme: 3x3 with passing the ball over the net with two hands from above preceded by displacement with two hands from above</li> </ul>	<p><b>3. HANDBAL Year I of training</b></p> <ul style="list-style-type: none"> <li>pass thrown with one hand over the shoulder: from the spot and from the move</li> <li>two-handed gripping, on the spot and on the move</li> <li>simple dribbling</li> <li>throwing at the goal from the spot</li> <li>throwing at the goal with added steps</li> <li>fundamental position</li> <li>technical procedures specific to the goalkeeper</li> <li>the ball being put back into play by</li> </ul> <ul style="list-style-type: none"> <li>overcoming</li> <li>folding</li> <li>the mark of the opponent in ball possession and clearance</li> <li>interception</li> <li>the half-circle attack system</li> <li>sitting in defence in the 6:0</li> <li>themed game variations</li> <li>knowledge of the rules of the game: passing, fouling, double dribbling</li> <li>sports information</li> </ul> <p><b>Second year of training</b></p> <ul style="list-style-type: none"> <li>one-handed shoulder pass, on the spot and out of the way, in different directions</li> <li>multiple dribbling</li> <li>shooting at goal from 7 m</li> <li>cross-step shooting at the goal</li> <li>throwing at the goal from running</li> </ul>	<p>leaning forward, standing with bent knees (from squatting)</p> <ul style="list-style-type: none"> <li>batting the ball with the stick</li> <li>targeting the opponent when he is in the box or triangle on the spot or on the run</li> <li>running through colour</li> <li>blocking (stopping the ball)</li> <li>individual defence</li> <li>entry into the game</li> <li>seating</li> <li>play actions on the court: catching and passing the ball in triangle and square "aiming" the opponent</li> <li>knowledge of regulation of the game</li> </ul> <p><b>5. RUGBY-TAG Second year of training</b></p> <ul style="list-style-type: none"> <li>carrying the ball with one hand and two hands from running</li> <li>two-handed balloon catch, on the spot and on the move</li> <li>picking the balloon off the ground from the run</li> <li>pass on the spot and run</li> <li>cross pass</li> <li>skipped pass</li> <li>pass with half turn</li> <li>over-the-shoulder pass</li> <li>hooked barrette</li> <li>change of direction</li> <li>fenta</li> <li>pivot</li> <li>the fundamental collective and individual position in defence</li> <li>pulling the rugby-tag belt</li> </ul>	<p>and individual, offensive and defensive: jumps and jumps reduced; man-to-man; reduced</p> <ul style="list-style-type: none"> <li>collective and individual tactical actions including the technical procedures learned</li> </ul> <p><b>6. VOLLEYBALL Third year of training</b></p> <ul style="list-style-type: none"> <li>technical-tactical actions specific to the known game system</li> <li>themed game variants with reduced staff on reduced terrain</li> <li>integration of technical-tactical actions in the bilateral game, under regulatory conditions</li> <li>knowledge of refereeing, organisation and conduct of the game of volleyball</li> <li>sports information</li> </ul> <p><b>7. *TORBALL Third year of training</b></p> <ul style="list-style-type: none"> <li>the attack from a fundamental position</li> <li>strike parallel to the edge line</li> <li>the attack shot from the away side, on centre and diagonally</li> <li>penalty kick with left-right movement and attack parallel to the touchline</li> <li>defence by diving with arms in the direction of the ball, towards own goal</li> <li>Defence with the centre's dive with arms towards the direction of the ball,</li> </ul>

Areas of content	Content elements			
	Fifth grade	Class VI	Seventh grade	Eighth grade
	<p>from the jump, by placement with a mine</p> <ul style="list-style-type: none"> <li>front bottom service</li> <li>taking service from the bottom of the front (with two hands from above)</li> <li>small-staff game model (4x4)</li> <li>knowledge of collective tactical actions (devices, methods and rules of action) specific to the 4x4 game model (when serving, receiving service, defending and attacking)</li> <li>two-handed pick-up from below</li> <li>knowledge of the rules of the game: touching the net, double hitting, ball held</li> <li>sports information</li> </ul> <p><b>7. * TORBALL Year I of training</b></p> <ul style="list-style-type: none"> <li>fundamental position</li> <li>catching and passing the ball</li> <li>throwing at the goal</li> <li>orientation in the defence area</li> <li>defensive settlement</li> <li>game bilateral, with applying rules learned</li> </ul> <p><b>8. * GOALBALL Year I of training</b></p> <ul style="list-style-type: none"> <li>fundamental position</li> <li>catching and passing the ball</li> <li>throwing at the goal</li> <li>orientation in the defence area</li> <li>defensive settlement</li> <li>game bilateral, with applying rules learned</li> </ul>	<ul style="list-style-type: none"> <li>jump shot</li> <li>specific movements in fundamental positions in attack and defence</li> <li>blocking balls thrown towards gate</li> <li>marking the opponent with and without the ball and demarcation</li> <li>penetration</li> <li>overcoming</li> <li>the ball being put back into play by port</li> <li>interception</li> <li>proceed technical specific to the goalkeeper</li> <li>single-pivot attack system</li> <li>direct counterattack</li> <li>counterattack with intermediary</li> <li>tactical actions in the 6:0 defence system</li> <li>themed game variations</li> <li>knowledge of the rules of the game: defending in the half-court, stepping over the half-court in attack, foot</li> <li>sports information</li> </ul> <p><b>4. OINĂ</b></p> <p><b>Year I of training</b></p> <ul style="list-style-type: none"> <li>holding and protecting the oar ball with one and two hands</li> <li>catching the oar ball from a standing position, jumping, walking and running</li> <li>throwing the oar ball for batting, passing and "aiming"</li> <li>passing the over-the-shoulder</li> </ul>	<p>from running</p> <ul style="list-style-type: none"> <li>technical completion procedures</li> <li>penetration techniques</li> <li>tactical overtaking actions</li> <li>interception</li> <li>closing the angle of defence</li> <li>different game systems: in steps; man-to-man and sliding (defence)</li> <li>themed game variations</li> <li>collective and individual tactical actions including technical procedures learned</li> <li>knowledge of the rules of the game</li> </ul> <p><b>6. VOLLEYBALL Second year of training</b></p> <ul style="list-style-type: none"> <li>top front service</li> <li>taking service from the top from the front</li> <li>lifting forward</li> <li>the attack on the direction of elk</li> <li>6x6 game model without specialisation by area and per post, with lifter in zone 3</li> <li>knowledge of collective tactical actions (devices, methods and rules of action within them) specific to the 6x6 game model with lifter in zone 3, when serving, receiving, attacking and defending</li> <li>lifting forward from zone 3 to zone 4</li> <li>lifting forward from zone 3 to zone 2</li> <li>the attack on the direction of</li> </ul>	<p>the other two players with their feet in the same direction</p> <ul style="list-style-type: none"> <li>the placement of the remaining players on the field, when the player who caused the personal foul is eliminated (torball)</li> <li>bilateral game, with the application of rules learned</li> <li>knowledge of the rules of game</li> </ul> <p><b>8. * GOALBALL Third year of training</b></p> <ul style="list-style-type: none"> <li>hit by attack from fundamental position</li> <li>strike parallel to the edge line</li> <li>the attack shot from the away side, on centre and diagonally</li> <li>penalty kick with left-right movement and attack parallel to the touchline</li> <li>defence by diving with arms in the direction of the ball, towards own goal</li> <li>defence with the centre's dive with arms towards the direction of the ball, the other two players with their feet in the same direction</li> <li>placement of the remaining players on the pitch, when the player who caused the personal foul is sent off (goalball)</li> <li>bilateral game, with the application of rules learned</li> </ul>

		overhead oar ball	the elk in zone 2	
<b>Areas of content</b>	<b>Content elements</b>			
	<b>Fifth grade</b>	<b>Class VI</b>	<b>Seventh grade</b>	<b>Eighth grade</b>



	<ul style="list-style-type: none"> <li>▪ <b>BADMINTON</b></li> <li>▪ <b>CYCLING</b></li> <li>▪ <b>IN</b></li> <li>▪ <b>KORFBALL</b></li> <li>▪ <b>SPORTS ORIENTATION</b></li> <li>▪ <b>ICE SKATING/SKATING WITH ROLLS</b></li> <li>▪ <b>SANIE</b> (ordinary or by competition)</li> <li>▪ <b>ALPINE SKI</b></li> <li>▪ <b>SCHI FOND</b></li> <li>▪ <b>AEROBIC SPORT</b></li> <li>▪ <b>ŞAH</b></li> <li>▪ <b>TABLE TENNIS</b></li> <li>▪ <b>TRUTH</b></li> </ul>	<p>head</p> <ul style="list-style-type: none"> <li>▪ serving the oina ball standing with the torso slightly bent forward</li> <li>▪ batting the ball with the stick</li> <li>▪ targeting the opponent when he is in the box or triangle on the spot or on the run</li> <li>▪ running through colour</li> <li>▪ blocking (stopping the ball)</li> <li>▪ individual defence</li> <li>▪ entry into the game</li> <li>▪ seating</li> <li>▪ knowledge of regulation of the game</li> </ul> <p><b>Second year of training</b></p> <ul style="list-style-type: none"> <li>▪ holding and protecting the oar ball with one and two hands</li> <li>▪ catching the oar ball on the spot, jumping, walking and running</li> <li>▪ throwing the oar ball for batting, passing and "aiming"</li> <li>▪ passing the oar ball from over the shoulder, over the head, from the elbow joint</li> <li>▪ serving the oina ball standing with the torso slightly bent forward, standing with the knees bent (from a crouch)</li> <li>▪ batting the ball with the stick</li> <li>▪ targeting the opponent when he is in the box or triangle on the spot or on the run</li> </ul>	<ul style="list-style-type: none"> <li>▪ notions on the organisation of the attack in the specific conditions of the two game structures (after the service and after the attack)</li> <li>▪ knowledge of the rules of the game: player rotation, point award, service errors, net errors</li> <li>▪ sports information</li> </ul> <p><b>7. * TORBALL</b></p> <p><b>Second year of training</b></p> <ul style="list-style-type: none"> <li>▪ catching and passing the ball</li> <li>▪ throwing at the goal from the spot</li> <li>▪ throwing at gate from movement, 3-5 steps</li> <li>▪ penalty kick with left or right movement and diagonal attack</li> <li>▪ left-right plunge with hands in the same direction</li> <li>▪ bilateral game, with the application of the rules learned</li> <li>▪ information on the rules of the game</li> </ul> <p><b>8. * GOALBALL</b></p> <p><b>Second year of training</b></p> <ul style="list-style-type: none"> <li>▪ catching and passing the ball</li> <li>▪ throwing at the goal from the spot</li> <li>▪ throwing at gate from movement, 3-5 steps</li> <li>▪ penalty kick with left or right movement and diagonal attack</li> <li>▪ left - right plunge with hands in the same direction</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>BADMINTON</b></li> <li>▪ <b>CYCLING</b></li> <li>▪ <b>RHYTHMIC GYMNASTICS</b></li> <li>▪ <b>IN</b></li> <li>▪ <b>KORFBALL</b></li> <li>▪ <b>SPORTS ORIENTATION</b></li> <li>▪ <b>PATINAJ PE ICE/ ROLLER SKATING</b></li> <li>▪ <b>SANIE</b> (ordinary or by competition)</li> <li>▪ <b>ALPINE SKI</b></li> <li>▪ <b>SCHI FOND</b></li> <li>▪ <b>AEROBIC SPORT</b></li> <li>▪ <b>ŞAH</b></li> <li>▪ <b>TABLE TENNIS</b></li> <li>▪ <b>TRUTH</b></li> </ul>
<b>Areas of content</b>	<b>Content elements</b>			
	<b>Fifth grade</b>	<b>Class VI</b>	<b>Seventh grade</b>	<b>Eighth grade</b>

		<ul style="list-style-type: none"> <li>▪ running through colour</li> <li>▪ blocking (stopping the ball)</li> <li>▪ individual defence</li> <li>▪ entry into the game</li> <li>▪ seating</li> <li>▪ play actions on the court: catching and passing the ball in triangle and square "aiming" the opponent</li> <li>▪ knowledge of regulation of the game</li> </ul> <p><b>5. RUGBY-TAG Year I of training</b></p> <ul style="list-style-type: none"> <li>▪ one-handed and two-handed ballooning</li> <li>▪ catching the balloon with two hands, on the spot and on the move</li> <li>▪ picking up the balloon from the ground</li> <li>▪ pass on the spot and run</li> <li>▪ change of direction</li> <li>▪ fenta</li> <li>▪ knowledge and accommodation of rugby-tag belt</li> <li>▪ fundamental position in defence</li> <li>▪ handling and pulling tag belt</li> <li>▪ technical completion procedures</li> <li>▪ tactical penetration procedures</li> <li>▪ tactical overtaking actions</li> <li>▪ collective and individual tactical actions including the technical procedures learned</li> <li>▪ themed game variations</li> <li>▪ knowledge of the rules of the game</li> </ul> <p><b>Second year of training</b></p>	<ul style="list-style-type: none"> <li>▪ bilateral game, with the application of the rules learned</li> <li>▪ knowledge of the rules of the game</li> </ul> <p><b>BADMINTON</b>  <b>CYCLING</b>  <b>IN SPORTS</b>  <b>RHYTHMIC GYMNASTICS</b>  <b>IN</b>  <b>KORFBALL</b>  <b>SPORTS ORIENTATION</b>  <b>PATINAJ PE ICE/</b>  <b>ROLLER SKATING</b>  <b>SANIE (ordinary or by competition)</b>  <b>ALPINE SKI</b>  <b>SCHI FOND</b>  <b>AEROBIC SPORT</b>  <b>ŞAH</b>  <b>TABLE TENNIS</b>  <b>TRUTH</b></p>	
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		<ul style="list-style-type: none"> <li>▪ carrying the balloon with one hand and</li> </ul>		
<b>Areas of content</b>	<b>Content elements</b>			
	<b>Fifth grade</b>	<b>Class VI</b>	<b>Seventh grade</b>	<b>Eighth grade</b>

		<p>with two hands from running</p> <ul style="list-style-type: none"> <li>▪ catching the balloon with two-handed, on the spot and from the move</li> <li>▪ picking the balloon off the ground from the run</li> <li>▪ pass on the spot and run</li> <li>▪ cross pass</li> <li>▪ skipped pass</li> <li>▪ pass with half turn</li> <li>▪ over-the-shoulder pass</li> <li>▪ hooked barrette</li> <li>▪ change of direction</li> <li>▪ fenta</li> <li>▪ pivot</li> <li>▪ the fundamental collective and individual position in defence</li> <li>▪ pulling the rugby-tag belt out of the run</li> <li>▪ tactical completion procedures</li> <li>▪ tactical penetration procedures</li> <li>▪ technical overtaking actions</li> <li>▪ interception</li> <li>▪ closing the angle of defence</li> <li>▪ different game systems: in steps; man-to-man and sliding (defence)</li> <li>▪ themed game variations</li> <li>▪ collective and individual tactical actions that will include the technical procedures learned</li> <li>▪ knowledge of the rules of the game</li> <li>▪ sports information</li> </ul> <p><b>6. VOLLEYBALL Year I of training</b></p> <ul style="list-style-type: none"> <li>▪ pass with two hands from above, preceded by moving and stopping facing the direction of</li> </ul>		
<b>Areas of</b>	<b>Content elements</b>			

content	Fifth grade	Class VI	Seventh grade	Eighth grade
		<p>ball transmission</p> <ul style="list-style-type: none"> <li>▪ organisation of the three strikes</li> <li>▪ variations on the theme: 3x3 with passing the ball over the net with two hands from above preceded by displacement, with two hands from above from jumping, by one-handed placement</li> <li>▪ front bottom service</li> <li>▪ taking service from the bottom of the front (with two hands from above)</li> <li>▪ small-staff game model (4x4)</li> <li>▪ knowledge of collective tactical actions (devices, methods and rules of action) specific to the 4x4 game model (when serving, receiving service, defending and attacking)</li> <li>▪ two-handed pick-up from below</li> <li>▪ knowledge of the rules of the game: touching the net, double hitting, ball held</li> <li>▪ sports information</li> </ul> <p><b>Second year of training</b></p> <ul style="list-style-type: none"> <li>▪ top front service</li> <li>▪ taking service from the top from the front</li> <li>▪ lifting forward</li> <li>▪ the attack on the direction of elk</li> <li>▪ game model 6x6 without specialisation by area and per post, with lifter in zone 3</li> <li>▪ knowledge of collective tactical actions (devices, methods and rules of action within them) specific</li> </ul>		

Areas of content	Content elements			
	Fifth grade	Class VI	Seventh grade	Eighth grade
		<p>6x6 game pattern with a pick-up in zone 3, when serving, receiving, attacking and defending</p> <ul style="list-style-type: none"> <li>▪ lifting forward from zone 3 to zone 4</li> <li>▪ lifting forward from zone 3 to zone 2</li> <li>▪ the attack on the direction of the elk in zone 2</li> <li>▪ notions on the organisation of the attack in the specific conditions of the two game structures (after the service and after the attack)</li> <li>▪ knowledge of the rules of the game: player rotation, point award, service errors, net errors</li> <li>▪ sports information</li> </ul> <p><b>7. * TORBALL Year I of training</b></p> <ul style="list-style-type: none"> <li>▪ catching and passing the ball</li> <li>▪ directed shooting at the goal (on the centre, diagonally)</li> <li>▪ penalty kick</li> <li>▪ orientation for correct positioning in the defence space</li> <li>▪ the disposition in defence</li> <li>▪ game bilateral, with applying rules learned</li> <li>▪ knowledge of the rules of the game</li> </ul> <p><b>8. * GOALBALL Year I of training</b></p> <ul style="list-style-type: none"> <li>▪ catching and passing the ball</li> <li>▪ directed shooting at the goal</li> </ul>		

Areas of content	Content elements			
	Fifth grade	Class VI	Seventh grade	Eighth grade
		(on center, diagonally) <ul style="list-style-type: none"> <li>▪ penalty kick</li> <li>▪ orientation for correct positioning in the defence space</li> <li>▪ the disposition in defence</li> <li>▪ game bilateral, with applying the rules learned</li> <li>▪ knowledge of the rules of the game</li> </ul> <ul style="list-style-type: none"> <li>▪ <b>BADMINTON</b></li> <li>▪ <b>CYCLING</b></li> <li>▪ <b>IN SPORTS</b></li> <li>▪ <b>RHYTHMIC GYMNASTICS</b></li> <li>▪ <b>IN</b></li> <li>▪ <b>KORFBALL</b></li> <li>▪ <b>SPORTS ORIENTATION</b></li> <li>▪ <b>ICE SKATING/SKATING WITH ROLLS</b></li> <li>▪ <b>SANIE</b> (ordinary or by competition)</li> <li>▪ <b>ALPINE SKI</b></li> <li>▪ <b>SCHI FOND</b></li> <li>▪ <b>AEROBIC SPORT</b></li> <li>▪ <b>ŞAH</b></li> <li>▪ <b>TABLE TENNIS</b></li> <li>▪ <b>TRUTH</b></li> </ul>		

<b>5. Hygiene and personal protection</b>	<ul style="list-style-type: none"> <li>▪ exercises and rules for preparing the body for effort</li> <li>▪ exercises and rules for restoring the body after exercise</li> <li>▪ individual and collective hygiene rules</li> <li>▪ signs of deteriorating hygiene individual and collective</li> <li>▪ hygiene maintenance measures individual and collective</li> </ul>	<ul style="list-style-type: none"> <li>▪ rebalancing techniques</li> <li>▪ ways of mitigating shocks</li> <li>▪ hygiene maintenance measures individual and collective</li> <li>▪ techniques for mutual aid/support in execution</li> <li>▪ knowledge about: <ul style="list-style-type: none"> <li>- the importance of training comeback</li> <li>- the importance of breathing, with</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ characteristics of equipment suitable for different working conditions</li> <li>▪ content and value of the training body for effort</li> <li>▪ relationships between effort and breaks</li> <li>▪ means of self-protection during races and competitions</li> <li>▪ knowledge about the role</li> </ul>	<ul style="list-style-type: none"> <li>▪ characteristics of equipment suitable for physical activities</li> <li>▪ ways of checking the functionality of equipment and teaching materials used in physical education and sport activities</li> <li>▪ procedures for ensuring hygienic conditions specific to physical education activities and</li> </ul>
<b>Areas of content</b>	<b>Content elements</b>			
	<b>Fifth grade</b>	<b>Class VI</b>	<b>Seventh grade</b>	<b>Eighth grade</b>
	<ul style="list-style-type: none"> <li>▪ hygiene measures for the premises, installations and appliances used</li> <li>▪ techniques for mutual aid/support in the execution of motor acts of increased difficulty</li> </ul>	restorative nature	Breathing during exertion and effective personal hygiene measures in physical education and sport lessons, competitions and afterwards	<ul style="list-style-type: none"> <li>▪ fair criteria for the formation of groups/teams for participation in races/contests</li> <li>▪ knowledge of first aid in case of accidents</li> </ul>



<p><b>6. Behaviour you and attitudes</b></p>	<ul style="list-style-type: none"> <li>▪ the roles assigned to pupils in physical education and sport lessons</li> <li>▪ behaviours specific to sports competitions</li> <li>▪ relations between the members of a group/team in physical education and sport activities</li> <li>▪ emotional states and reactions occurring in sporting events</li> <li>▪ acceptable attitudes and behaviours in competitive sport activities</li> <li>▪ objectivity in assessing value of partners and opponents</li> <li>▪ forms of encouraging team-mates and congratulating opponents</li> </ul>	<ul style="list-style-type: none"> <li>▪ taking on specific responsibilities in physical education and sport lessons and competitions</li> <li>▪ taking responsibility in fulfilling the specific roles of physical education and sport activities</li> <li>▪ behaviours integrated into the notion of fair play</li> <li>▪ willingness to prevent/resolve/resolve conflict situations</li> </ul>	<ul style="list-style-type: none"> <li>▪ leadership, subordination and collaboration in practical activities</li> <li>▪ avoidance of "conflict" situations that may arise in practical activities</li> <li>▪ intervention to resolve/resolve conflict situations</li> <li>▪ behaviours integrated into the notion of fair play</li> <li>▪ outstanding examples of fairplay behaviour</li> </ul>	<ul style="list-style-type: none"> <li>▪ taking on leadership roles performed by students</li> <li>▪ the manifestation of the spirit of self-organisation and self-direction in practical activities</li> <li>▪ application of solutions to resolve/resolve conflict situations that may arise during the course of races/contests</li> <li>▪ objectivity evaluation of results obtained in practice and in competitions</li> <li>▪ initiative in organising and running individual or team competitions and contests between pupils</li> <li>▪ knowledge about: <ul style="list-style-type: none"> <li>- fair play and its forms of manifestation</li> <li>- Olympism</li> </ul> </li> </ul>
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## METHODOLOGICAL SUGGESTIONS

In order to enhance key competences and to ensure transferability at the level of educational activity, it is recommended that the teaching strategies used in the teaching of *Physical Education and Sport* should emphasize the progressive construction of knowledge, flexibility of approaches and differentiated pathways, coherence and inter- and transdisciplinary approaches.

The current curriculum builds on the examples of learning activities from previous curricula, thus providing teachers with concrete support in developing teaching strategies that enable a real shift from content-centred instruction to learning experience-centred learning.

### Teaching strategies

Taking into account the particularities of pupils, teachers will use approaches that make the content of the physical education lesson accessible and attractive. Competition becomes the main *form of organisation*, adapted to the motor and mental capacities of pupils.

At the beginning of the school year, the organisation of classes and working groups in the spirit of inclusive education will be pursued. Emphasis will be placed on working in pairs and groups, encouraging integration, mutual support and encouragement.

Sufficient teaching materials (balls, hoops, heads, poles, devices, installations, protection systems, etc.) will be used to ensure an increased volume of practice and the protection of students, eliminating any possibility of accidents.

"Content elements of the organisation of motor activities", "Content elements of harmonious physical development" can only be used as lesson topics in the first 3-4 weeks of the first semester. In the other lessons these contents are practised in the constant instructional links/sequences of the physical education and sport lesson, i.e. "Organisation of the group of pupils", "Preparing the body for exertion", "Selective influence of the locomotor system" and "Recovery of the body after exertion".

The areas of 'Hygiene and personal protection' and 'Behaviours and attitudes' will be covered in each lesson, across all lesson links, without being lesson topics in their own right.

The topics of the lessons, two to a maximum of three, will be made up of the areas "Motor skills" and "Sports disciplines". When a combination of motor skill and motor skill topics is chosen in the same lesson, the relationship between them should be considered so that the motor skill is conducive to learning/building the skill.

Locomotion, stability and handling skills will be practised in the various lessons, through the creation of relays/application courses and will also be present in the lessons for the acquisition of specific motor skills of the sports disciplines covered.

Motor skills, as they are presented in this programme, will be developed throughout the school year, taking into account the need to achieve a high level of them, both for a harmonious physical development and for the proper acquisition of various motor skills and abilities in the sports disciplines covered. Their place in the lesson is after the selective influence of the locomotor apparatus (development of speed or skill/coordination skills) and after the approach to the specific motor skills of the different sports (development of strength or endurance skills).

In order to achieve an adequate degree of mastery of the athletic events of running, jumping and throwing, the conditions of each school will be taken into account, but with the obligation to tackle at least three events, one in each category. Teaching and practice may be done in front of the class, in groups, individually or combined in the same lesson. The place in the lesson for the teaching of athletics skills is after the link intended for selective influence of the locomotor apparatus or after the development of motor skills such as speed or skill/coordination, or after the link intended for the development of another motor skill.

In the case of teaching elements of acrobatic gymnastics and vaulting on apparatus it is necessary to ensure all conditions to avoid accidents (securing the venue, providing mats, gymnastics crate and trampoline, etc.). Vaulting practice will be carried out only in the direct presence of the teacher, who will provide assistance, help and support. The place in the lesson for the teaching of gymnastics and jumping skills with support is after the training link/sequence intended for the selective influence of the locomotor apparatus, after that intended for the development of speed or skill/coordination skills or after that for the development of another motor skill.

The sports game is of particular importance because it can make the lesson more attractive. A single sports game can be played for the whole class or two sports games can be played - one for girls and one for boys. The place in the lesson is after the link

designed to selectively influence the locomotor system, after the development of motor quality speed or skill/coordination skills or after the approach of another motor skill.

Teachers can also develop other learning activities, content and assessment tools, depending on the specifics of the class, the material base of the school and the students' choices.

The physical education and sport lesson remains a creation of each teacher that must reflect his/her professional skills, the ability to adapt to the concrete conditions of the teaching activity and the particularities of the students, using a series of methodological guidelines/suggestions offered by this program, as follows:

- presentation by the teacher of the knowledge, skills, abilities and sports disciplines to be covered, the tests and evaluation criteria and their distribution by semester;
- predictive assessment of student readiness;
- the elimination of any form of verbal or physical aggression from the teacher-student relationship;
- the teacher to maintain a constant relationship with the class teacher, especially on the following issues:
  - presentation by students of the medical certificate attesting to their state of health;
  - appropriate equipment for participation in physical education and sport lessons;
  - the teacher's regular recording of the frequency and results of the current assessment in the class catalogue.

In the perspective of a competency-based approach to education, it is recommended that continuous, formative assessment be used as a predominant tool. The assessment process will combine traditional and alternative forms (project, portfolio, self-assessment, peer assessment, systematic observation of student activity and behaviour) and will focus on:

- direct correlation of the assessed results with the specific competences targeted by the programme school;
- valuing learning outcomes in relation to each pupil's academic progress;
- using a variety of methods to communicate school results;
- recognition, at assessment level, of learning experiences and competences acquired in non-formal or informal contexts.

In order to make an effective assessment, teachers will use the "Assessment System for Secondary Education" which includes the areas assessed, the instruments (tests), the distribution of these by class, the description of the tests and the criteria used in the assessment of each test, respectively:

### **ASSESSMENT SYSTEM FOR SECONDARY EDUCATION**

Crt. no.	DOMAIN	MIJLOACE	Class V- a	Class VI - a	Class VII - a	Class VIII
1.	Development harmonious physique	Complex of harmonious physical development	5 exercises 4 x 8 strokes	6 exercises 4 x 8 strokes	7 exercises 4 x 8 strokes	8 exercises 4 x 8 strokes
2.	Speed	10 x 5 m shuttle	X	X	X	X
		at sprint, topstart	X	X	X	X
3.	Strength	Exercises for developing the main muscle groups	1 exercise/ muscle groups	2 exercises/ 2 muscle groups	2 exercises/ 3 muscle groups	2 exercises/ 4 muscle groups
4.	Resistance	Long run	4 min.	4 min.	4 min.	4 min.
5.	Athletics	Athletic event at choice (one of those set out in the school curriculum)	X	X	X	X
		Ground exercise with required elements	5 items	6 items	7 items	8 items

6.	Gymnastics	Jumping on a gymnastic apparatus (according to the programmeschool)	X	X	X	X
Crt. no.	DOMAIN	MIJLOACE	Class V- a	Class VI - a	Class VII - a	Class VIII
7.	Sports game	technicalstructure	X	X (from the game in the first year of training)	-	-
		Bilateral game	X	X	X (game 2 in 6th grade)	X

## DESCRIPTION OF THE ASSESSMENT SAMPLES

### ❖ Harmonious physical development complex

Harmonious physical development complexes (free exercise with portable objects) are designed by The lessons are taught and practised by the teacher and are learned and practised by the pupils during the school year.

Complexes must include exercises for the head-neck, shoulder joint and limbs upper body, torso, lower limbs. For the awarding of marks, the complex with the number of exercises and repetitions provided for each class is carried out and assessed:

- memorising the structure of the exercises;
- their methodical sequence in the complex;
- correct execution of the component movements;
- amplitude, rhythm and expressiveness of movements.

### ❖ 10 x 5 m shuttle

Materials needed: marking tape/tags, stopwatch.

Procedure: Mark two parallel lines 5 m apart with marking tape.

distance from each other/ two milestones shall be placed 5 m apart. The pupil positions him/herself in front of one of the lines/ one of the poles, with one foot on the line and the other back. At the start signal, he must run as fast as possible to the other line by crossing it with both feet and running back to the start line. One round trip is one cycle, 5 cycles are required for this test.

Note:

- The width of the lines drawn must be 5 cm.
- Timing will take place from the moment the student starts and will be completed at completion of the 5 running cycles.

### ❖ 50 m flat sprint, top start

Materials needed: marking tape, stopwatch.

Procedure: Students stand at the starting line in the top starting position and run the course, with free start, set distance.

Note:

- The time taken for a student to cover this distance from the time of the movement of the back foot at the start to the crossing of the finish line is timed.

### ❖ Exercises to develop strength of major muscle groups

This assessment test consists of the student performing, at the teacher's request, a number of selective exercises to develop the muscles of the abdomen, back, upper and lower limbs respectively:

- in 5th grade: one exercise for three of the four muscle regions, chosen by the student or set by the teacher;
- in 6th grade: two exercises for two muscle groups chosen by the student or set as a teacher;
- in grade 7: two exercises for three muscle groups chosen by the student or set by the teacher;
- in 8th grade; two exercises for each of the four muscle groups. Exercises can be from those performed during lessons or can be designed by the students. Assessment:
- whether the exercise effectively engages the targeted muscles;

- exercise volume and intensity;
- correct execution.

### ❖ Long run

The Long Run is run on flat ground, individually or in a pack, with each student taking a personal tempo so as to run continuously, without stopping or passing, for four minutes. The distance covered by each student during the four minutes of continuous running will be measured and recorded.

Evaluation criteria:

- continuous running for four minutes - weighting 50% of the final mark;
- distance covered in the four minutes - weighting 25% of the final mark;
- progress since the initial assessment - weighting 25% of the final mark.

### ❖ Athletic event of your choice (one of those provided in the programme) Evaluate:

- correctness of the technical execution - weighting 50% of the final mark;
- performance achieved - weighting 25% of the final mark;
- progress made since the initial test - weighting 25% of the final mark;

## Gymnastics

### ❖ Ground exercise with imposed elements

The assessment test consists of each student performing a freely chosen ground exercise comprising the number of required acrobatic elements set out in the assessment system for each class. The required acrobatic elements are determined by the teacher at the beginning of the gymnastics approach phase and will be communicated to the students.

Evaluation criteria:

- the existence in the free-choice exercise of the number of compulsory elements required by the assessment system for each class - weighting 50% of the final mark;
- correctness of the execution of each element - weighting 25% of the final mark;
- the flow and expressiveness of the execution - weighting 25% of the final mark.

### ❖ Jumping on a gym machine

Evaluate:

- correctness of the execution of the jumping phases - 50% of the final mark;
- flight amplitude - weighting 25% of the final mark;
- landing accuracy - 25% weighting of the final mark;

*In grades 7 and 8, the student chooses which jump to be assessed or may opt to perform both apparatus jumps as specified in the syllabus, recording either the average of the two scores or the best score.*

*In the vaulting event on a gymnastic apparatus, for evaluation purposes, the student is given two attempts, with the most successful being scored and the best score being recorded.*

## Sports game

### ❖ Technical structure

In 5th grade, the teacher specifies at the beginning of the school year the technical structure in which students will be assessed. This includes, in the form of a cursive action:

- a specific procedure for handling the ball, moving with the object of play, in relationship with a partner;
- a specific completion procedure.

In the 6th grade the technical structure will be made up of the specific procedures of the second sport game. It assesses:

- correctness of execution of technical procedures, components of the technical structure - weighting 50% of the final mark;
- the flow and speed of the action - weighting 25% of the final mark;
- strength and/or accuracy of the completion process - weighting 25% of the final mark.

### ❖ Bilateral game

The event consists of "rounds" of bilateral play under regulation conditions, refereed by the teacher:

- respect the responsibilities of the position assigned to the team;
- efficiency of participation in attack and defence phases;
- working with teammates;
- regular contact and respect for opponents;
- operation in accordance with the regulations.

The results recorded will be centralised in an individual sheet (see model on page 41).

On the basis of the Protocol concluded between the Ministry of National Education and the Ministry of Youth and Sport, starting with the 2017-2018 school year, the biometric potential of the school population will be determined through the national project "BIOMETRIC PROGRAMME", coordinated by the National Research Institute for Sport (I.N.C.S.).

This project aims to highlight the level of some anthropometric and motor parameters evaluated in the Romanian school population, in order to characterize it from the point of view of its biometric potential and analyze it in relation to that of previous generations.

The methodology of specific measurements is presented below.

## DESCRIPTION OF ANTHROPOMETRIC MEASUREMENTS

Materials needed for measurement: centimetre tape

/roller, thallimeter.

Procedure:

To measure a pupil's height correctly, the pupil must be barefoot, in a sitting position against a vertical wall with his back and head touching the wall; the head is facing forward. The distance from ground level on the wall to the level of the vertex point (the highest point of the skull), determined with an echelon with sides of 15-20 cm, placed with one side on the vertex and one on the wall, or using a thallimeter or a tape measure (a grid graduated in cm and at least 0,5 cm subdivisions).

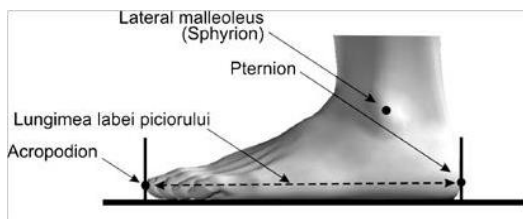
Material needed for realization measurement: scale medical scale (mechanical) checked.

Procedure:

For the objective and accurate measurement of a student's body weight, the student is placed on a scale. It is recorded in kilograms and subunits of kilograms (hundredths of a gram).

Materials needed for the measurement: centimetre tape / ruler / ruler.

Procedure:



To measure the length of the plant (barefoot or with a thin sock), the pupil lays it on a flat surface and the examining teacher measures the distance from the back edge of the heel (the pternion point) to the tip of the longest finger (usually the tip of the thumb), called the acropodion point. It is recorded in cm and 0.5 cm subdivisions.

### 4. Bust height

Materials needed for measurement: centimetre tape

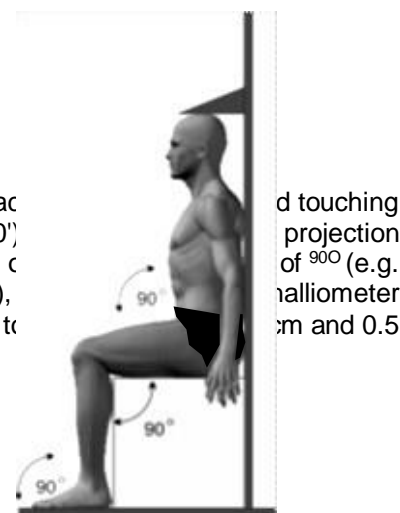
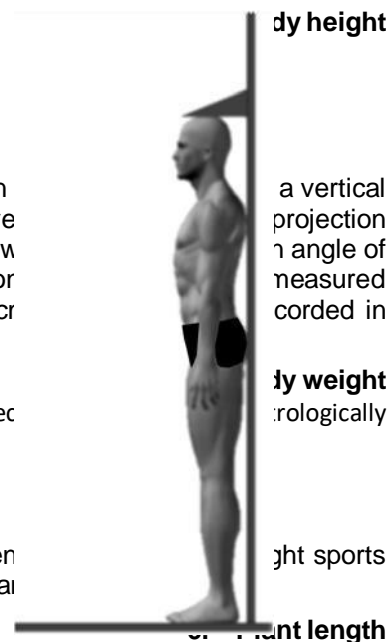
/roll/chair/seat.

Procedure:

The student is seated on a flat-surfaced chair (against a vertical wall) with the back touching the wall. The distance from the level of the horizontal platform of the chair (point '0') on the wall to the level of the vertex point (highest cranial point), determined with an echelon, 15-20 cm sides, placed with one side on the vertex and one on the wall), or a tape measure (a grid graduated in cm, with 0,5 cm subdivisions, may be glued to the wall).

Note to the examining teacher:

- It can be reported as a percentage of body height.
- At the same time, by subtracting the bust value from the height value



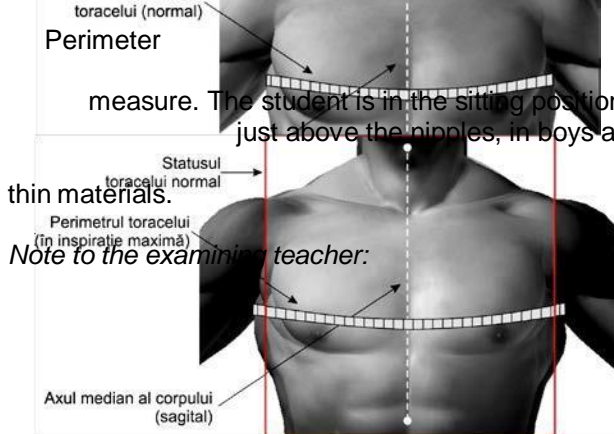
body, the length of the lower limbs and the percentage ratio to it.

## 5. Thoracic perimeter

Materials needed for the measurement:

centimeter ribbon/ruffle.

Procedure:



thin materials.

Note to the examining teacher:

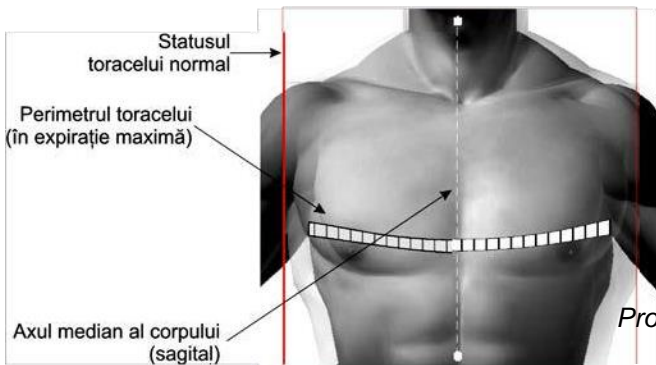
thoracic se measured with centimetric tape or with a flexible tape measure. The student is in the sitting position. The ribbon is placed, horizontally, around the chest, subaxillary, just above the nipples, in boys and approx. 3 cm above the nipples in girls. Pupils are dressed in a tank top or T-shirt made of

- Perimeter thoracic se measured in three moments:
  - in normal position;
  - in full inspiration;
  - in maximum exhalation.
- Record the three values. Determine the thoracic elasticity by subtracting the value of the thoracic perimeter at maximum inspiration from the value at maximum expiration.
- The three measurements are recorded in centimetres and 0.5 cm subdivisions.

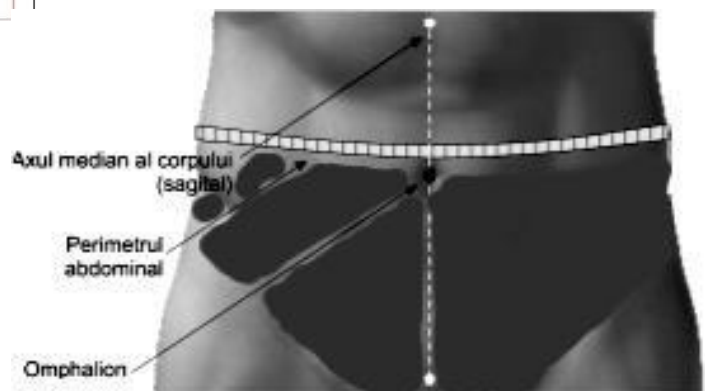
## 6. Abdominal perimeter

Materials needed for the measurement: centimeter ribbon/ruffle.

Procedure:



The abdominal circumference is measured with a centimetre tape or a flexible ruler. The student is in the orthostatic position. The ribbon is placed, horizontally, around the abdomen, above the navel at approx. 2-3 cm. Students are dressed in a tank top or T-shirt made of thin material, which is slightly raised at the abdomen. Record in centimetres and 0.5 cm subdivisions.

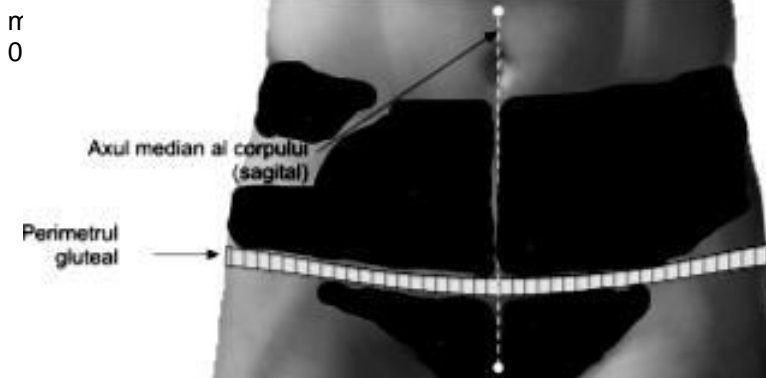


ie basin

Materials needed for the measurement: centimetre tape/roll.

Procedure:

The perimeter of the pelvis (gluteal) is measured with a centimetre tape or a flexible ruler. The student is in the sitting position. The brace is placed, horizontally, around the pelvis, at the most prominent points of the gluteal





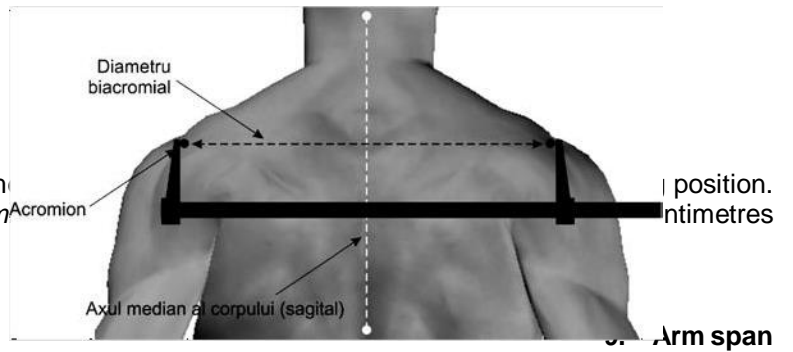
## 8. Diameter of biacromial

*Material needed for*

*measuring:* centimetre tape/roll.

*Procedure:*

The biacromial diameter is measured with a centimetre tape. The ribbon is placed horizontally from the left acromion



*Materials needed for the measurement:* centimetre tape/roll.

*Procedure:*

The width of the arms is measured with a centimetre tape or a flexible ruler. The student is in a position facing a vertical wall with a flat surface, with arms extended and raised sideways in a horizontal position. The pupil touches the wall with both palms. It is best to stick a horizontal grid on the wall, graduated in centimetres and subdivided by 0,5 cm (length of the grid, approx. 2 m and a width of approx. 40 - 50 cm, so that pupils of different heights can be measured). Measure the distance between the distal points of the middle fingers of the pupil's two hands. Record in centimetres and 0.5 cm subdivisions. It can be related to body height.



# DESCRIPTION OF BIOMOTOR MEASUREMENTS

## 1. Lumbar mobility/flexibility

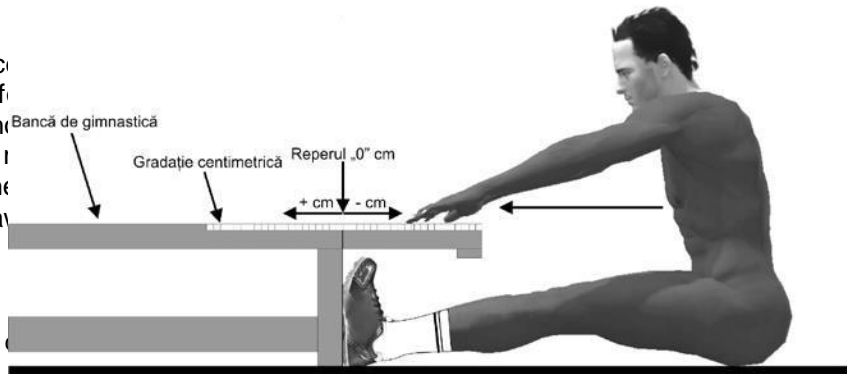
*Materials needed:* gym bench / rail approx. 50 cm.

*Procedure:*

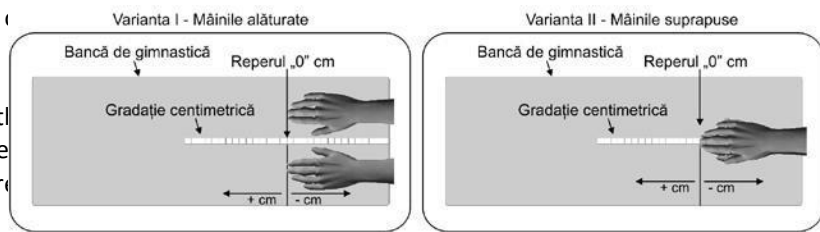
The student, without footwear, is placed on the edge of a gym bench. He/she will perform the measurement with fingers extended, with a short height of the vertical plane of the bench support is 10 cm (the height of the pupil's feet). This represents the measurement, with a ruler (or a scale drawn on the bench) at the hands.

*Note to the examining teacher:*

- The distance from the tips of the fingers to the 0 cm mark is recorded (e.g. - 8.5 cm).
- The distance from the tips of the fingers to the 0 cm mark is recorded (e.g. + 6.5 cm).
- For those who reach with their hands above the 0 cm mark, the hands can be joined (aligned) and the distance is measured in centimeters.



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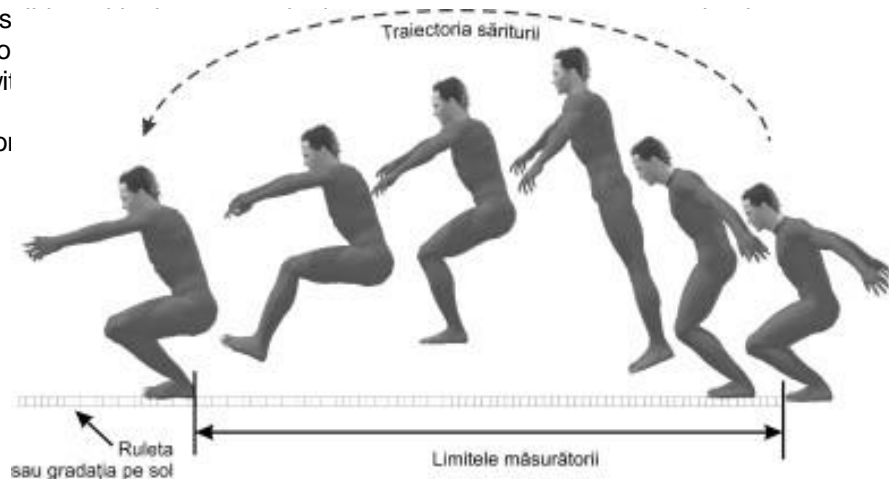
## 2. Long jump from a standing position

*Materials needed:* centimetre/tape for measuring, tape for marking, tape measure.

*Procedure:*

To perform the long jump, the student (wearing sports shoes) will be positioned with the toes of the shoes at the starting line (marked with a tape or traced), in a sitting position, with the feet parallel and facing forward, with a distance of approx. 8 to 10 cm apart. The pupil will perform a single lunge movement (standing, standing on tiptoes, carrying the arms upwards, followed by flexion of the lower limbs, simultaneously carrying the arms backwards, followed by release towards

forward, as long as possible and forth). On completion, only with his/her hands, unsupported, arms oblique for



ating,

*Note to the examining teacher:*

- The space in which this test is to be carried out should be marked as follows: a starting line and graduation lines, parallel to the starting line (every 5 cm), for measuring the result.
- Ideally, the space should be marked every 5 cm and the measurement recorded from cm to cm.
- The distance shall be measured from the start line to the heel level (rear limit of the shoes). If the two heels are not at the same level, the shortest distance to the starting line shall be recorded.
- If, after the jump, the student falls backwards or touches the ground with any part of the body, the measurement will be repeated. If the subject falls forward, the jump will be recorded as valid.
- The test is performed twice, with the best result being recorded.

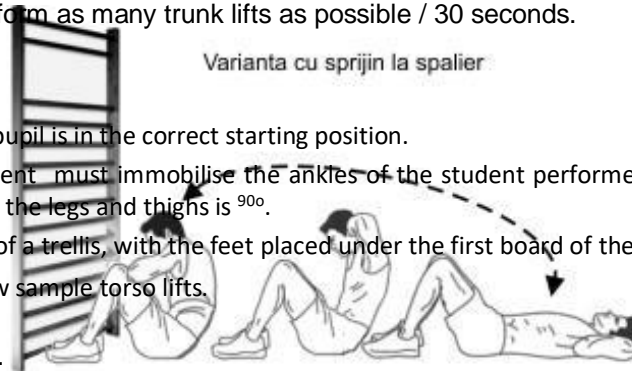
## 2. Trunk lifts

*Materials needed: gym mat, timer, treadmill (if applicable). Procedure:*

The student will sit on a gym mat or directly on the floor in a seated position with knees close together, bent at  $90^\circ$ , soles flat on the floor and hands behind their heads. He or she will move to the supine position on the mat and then return to the starting position, bringing the elbows forward until they touch the knees. At the examiner's signal, the student will perform as many trunk lifts as possible / 30 seconds.

*Note to the examining teacher:*

- The examining teacher checks that the pupil is in the correct starting position.
- The examining teacher or another student must immobilise the ankles of the student performer and the examining teacher ensures that the angle between the legs and thighs is  $90^\circ$ .
- The exercise can be performed in front of a trellis, with the feet placed under the first board of the trellis.
- The student being tested performs a few sample torso lifts.
- The examining teacher counts out loud each trunk lift, complete and correct.
- The total number of lifts, correctly and completely performed within 30 seconds, is recorded.



Varianta cu sprijin asistat

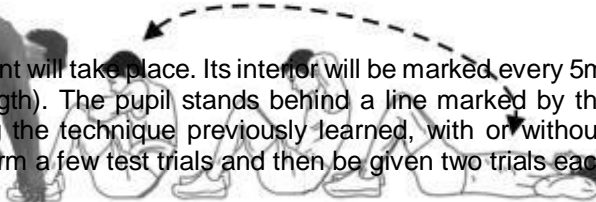
## 3. Throwing the oar ball

*Materials needed: oar ball, sports field. Procedure:*

An area will be set up on the sports field where the event will take place. Its interior will be marked every 5m, depending on the size of the field (preferably about 50m in length). The pupil stands behind a line marked by the examining teacher and throws the oar ball (by throwing), using the technique previously learned, with or without moose, as appropriate. Initially, students will warm up and perform a few test trials and then be given two trials each for testing. At the end, the best individual result will be recorded.

*Note to the examining teacher:*

- The result (preferably measured with a roulette wheel) will be recorded in metres and half metres.



#### 4. The "Flamingo" balance test

*Materials required:* special metal or wooden double "T" shaped stand (length = 50 cm; sides at ends = 15 cm; the section of the stand is rectangular, 4 cm high and 3 cm wide) / stopwatch.

*Procedure:*

The "Flamingo" test assesses the student's ability to maintain balance for 60 seconds in the position of standing on one leg (the student's preferred position) on the special stand, with the length of the sole collinear with the longitudinal axis of the stand. The student must be barefoot (no socks). The opposite lower limb is bent from the knee (until it touches the buttock muscles with the heel) and grasped by the ankle with the hand on the same side. The opposite upper limb is lifted sideways for balance. The examining teacher assists the pupil by standing in front of the pupil, helping him/her into the specific test position and providing support in case of imbalance.

*Note to the examining teacher:*

- The test will last 60 seconds and will be timed from the moment the student is stabilized in the described position without being supported by the examining teacher.
- The examining teacher will count and record the errors (loss of balance with touching the ground + number of hand detachments from the flexed lower limb) occurring within the 60 seconds of the test.
- Note the total number of errors/ 60 seconds.
- If there are more than 15 falls/balances in the first 30 seconds, the test stops and the score is '0'.



#### 5. Kept in the hanger

*Materials required:*

*Procedure:*

The pupil will rise up and keep the chin

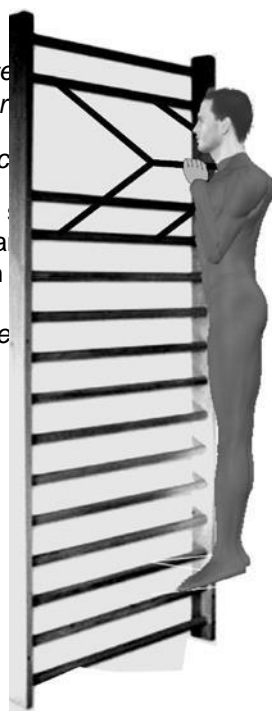
*Note to the examining teacher:*

bar 2.5 - 2.8 cm in diameter, attached to a support hanging on the trellis at a height of watch.

position on the bar (facing the support), at shoulder level, grasping with both hands, palms The pupil will rise (with the help of the examining teacher), by flexing the arms, until the e bar, keeping this position as long as possible, without leaning the chin against the bar.

*Note to the examining teacher:*

- The height of the bar will be adapted, according to the height of the students, so that they do not touch the ground with their feet, in the hanging position with bent arms.
- The measurement will be made with a stopwatch and will start when the student's chin is above the bar.
  - The timer stops when the eye line of the student being tested will fall below the level of the fixed bar.
- The result will be recorded in seconds and tenths of a second.

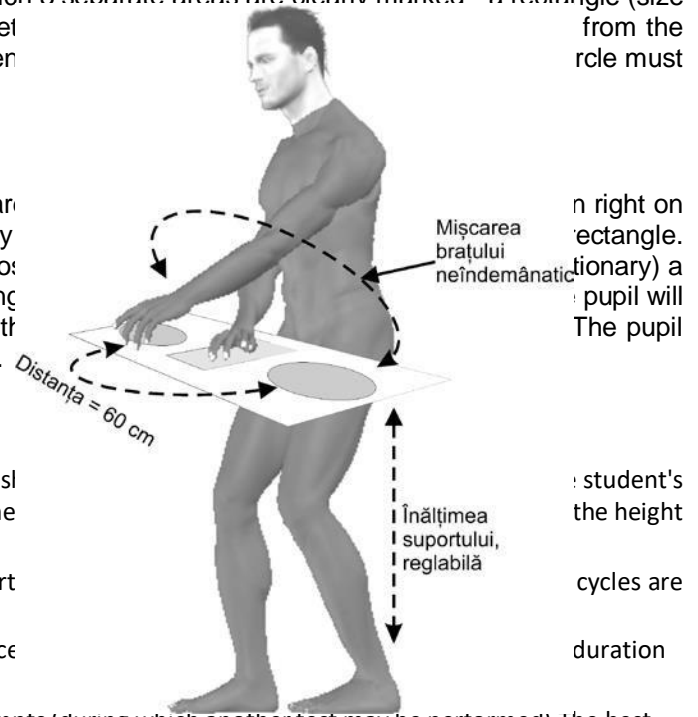


## 6. Tapping - "Tapping the boards"

**Materials needed:** a wooden board 120 cm x 40 cm, on which 3 separate areas are clearly marked - a rectangle (size 10 cm x 20 cm) placed in the centre and two discs (diameter 10 cm) placed on either side of the rectangle in a horizontal direction (the distance from the centre of the rectangle to the centre of each disc must be 20 cm); a stopwatch.

### Procedure:

The pupil stands in front of a table on which a wooden board is placed (on the surface of the table). The pupil will place the non-clumsy hand on the right on the rectangle. With the other hand (the active hand), he/she will make (cross) "back and forth" movement between the two circles, touching each of them. The pupil will perform 25 rapid back-and-forth cycles (touching each of them). The pupil must not stop before the signal from the examining teacher.



### Note to the examining teacher:

- The height of the table (or the wooden board support) should be at the student's umbilical region (the wooden board can be placed on the table of the students).
- Recording is done using a stopwatch, which will be started when the test is completed ( $t = \text{sec} + 1/10 \text{ sec}$ ).
- The position of the hand placed on the rectangle in the center of the test.
- The test is performed twice, with a break between attempts (during which another test may be performed). The best time is recorded.
- The assistance of two examiners is recommended - one who will time the period of time, required for a student to complete 25 cycles and one who will count out loud the cycles.
- If a disc has not been touched by the student being tested, an additional touch (or more) will be added (many), up to a total of 25 cycles.

## 7. Speed running

**Materials needed:** marking tape, sports field with flat and horizontal surface, stopwatch. **Procedure:** The race will be run over a distance of 50m, starting from the feet, on a flat and horizontal surface. In order to perform this test, students will need to be in sports equipment. They will stand at the starting line and run the distance indicated by the examining teacher (and marked on the sports field) at the maximum possible speed. Each student's time will be timed individually.

### Note to the examining teacher:

- Testing is done individually.
- The timer is started when the back foot is lifted off the track (on the move).
- Students must pass at full speed to the examiner's right (finish line); only then will they slow down.
- The useful running distance should be a minimum of 60-65 m, so that students cannot stop running.

## 8. 10x5m shuttle

*Materials needed: marking tape/tags, stopwatch. Procedure:*

Two parallel lines shall be drawn with marking tape at a distance of 5 m from each other (possibly two markers can be placed at a distance of 5 m from each other). The pupil shall stand in front of one of the lines/legs, with one leg set back (standing start position). At the start signal, he/she should run as fast as possible to the other line (milestone), crossing it with his/her feet and then running to the start line (milestone).

*Note to the examiner:*

- The width of the lines drawn must be 5 cm.
  - The measurement will be carried out from the moment the subject starts and will be completed at the end of the 5 running cycles.
- One run represents one cycle, with 5 cycles required for this test.
  - In the 5th cycle, the student should not slow down towards the finish line, but continue to run at speed, slowing down after passing it.
- The test surface must be long enough to allow the student to stop running after the last cycle.

## 9. Endurance running

*Materials needed: flat sports field, stopwatch. Procedure:*

Subjects will be placed at a starting line marked by the examining teacher and will undergo a 4-minute running test on a pre-established and marked route. At the end of the run, the examining teacher will give the command "stop" and record the distance run by each student, who must remain at the position at which he/she was at the command "stop".

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\*   \*

In order to enhance key competences and to ensure transferability at the level of educational activity, the teaching strategies used in the teaching of *Physical Education and Sport* will focus on coherence and integrated approaches.

The head of department/head of the method committee will ask the school timetable committee not to schedule more than two classes in the same hour.

The department of *Physical Education and Sport* will make the necessary arrangements to allocate, in addition to the two hours per week provided for in the common core curriculum for each class, one or two hours of the *curriculum at the school's discretion, for the* teaching of an optional sports subject.

The recorded data will be centralised in tables, based on individual sheets.

## INDIVIDUAL SHEET\*

No. ....

Student: ..... Year of birth: ..... Gender: .....

Crt no.	Anthropometric measurements		Annual testing			
			Cl. a V- a School year. ...../.....	Cl. a VI- a School year. ...../.....	Cl. a VII- a School year. ...../.....	Cl. a VIII- a School year. ...../.....
1.	Body height					
2.	Bust height					
3.	Body weight					
4.	Plant length					
5.	Thoracic Perimeter	Normal				
		Maximum inspiration				
		Maximum expiry				
		Chest elasticity				
6.	Abdominal perimeter					
7.	Perimeter of the basin					
8.	Diameter of biacromial					
9.	Arm span					

Crt no.	Biomotor measurements		Annual testing			
			Cl. a V- a School year. ...../.....	Cl. a VI- a School year. ...../.....	Cl. a VII- a School year. ...../.....	Cl. a VIII- a School year. ...../.....
1.	Lumbar mobility/flexibility					
2.	Lower limb strength <i>(long jump from a standing position)</i>					
3.	Trunk strength <i>(rises from sitting)</i>					
4.	Balance <i>("Flamingo" test)</i>					
5.	Tapping hand <i>("Touch the plates" test)</i>					
6.	Running speed <i>(50m, standing start)</i>					
7.	Speed-coordination <i>(shuttle 10 x 5m)</i>					
8.	Arm strength <i>(kept hanging)</i>					
9.	General strength <i>(run /4 min)</i>					
10.	Strength-coordination arms <i>(throwing the oar ball)</i>	<i>No moose</i>				
		<i>With elk</i>				

\*) **Note:** The INDIVIDUAL REPORT is a model; its content will be adapted according to the tests selected by each department.

The Department of *Physical Education and Sport* will insist on the school management to provide the minimum equipment necessary to achieve the general and specific competences, as provided by the curriculum, according to the following normative and the provisions of MECTS Order no. 3462/2012.

## NORMATIV

MINIMUM PROVISION/EDUCATIONAL UNIT IN PHYSICAL EDUCATION AND SPORT, EDUCATIONAL UNITS WITH GRADES V-VIII

No.crt.	Means of education	U.M.	Headlines	Quantity/Title
<b>STATUS, EQUIPMENT AND MATERIALS</b>				
1.	Gym bench	Buc.	1	4
2.	Goat for jumping	Buc.	1	1
3.	Gymnastics box	Buc.	1	1
4.	Tennis table (paddles and net)	Buc.	1	1
5.	Basketball hoop with stand and rings	Buc.	1	2
6.	Handball/football goal	Buc.	1	2
7.	Spalier	Buc.	1	6
8.	Volleyball pole	Set.	1	1
9.	Mattress	Buc.	1	8
10.	Tough trampoline	Buc.	1	2
11.	Measuring instrument - 10-beat stopwatch	Buc.	1	2
12.	Measuring instrument - 10m roulette wheel	Buc.	1	2
13.	Chess game	Buc.	1	8
14.	Ball for sports games - football	Buc.	1	6
15.	Ball for sports games - handball	Buc.	1	6
16.	Ball for sports games - rugby	Buc.	1	6
17.	Ball for sports games - volleyball	Buc.	1	6
18.	Ball for sports games - basketball	Buc.	1	6
19.	Oar ball	Buc.	1	6
20.	Medicine ball - 1-2 kg	Buc.	1	6
21.	Handball goal net	Buc.	1	2
22.	Basketball backboard net	Buc.	1	2
23.	Volleyball net	Buc.	1	1

\*

\*      \*



## Working group

PĂUNESCU Alin Cătălin	M.E.N. - D.G.E.M.Î.P.
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NIȚIȘOR Adrian	"Alice Voinescu" Secondary School Drobeta Turnu Severin

# HOPASUS RESEARCH REPORT

*Dragana Drljacic, Milan Djupovac, Aleksandar Ivanovski*  
*Sport Diagnostic Center Sabac*

## METHODS

The study that was conducted from December 2022 to February 2023 involved parents/guardians, children, and coaches / teachers of physical education (TPE) from Romania (ROM), Bulgaria (BUL), Lithuania (LITH) and Serbia (SRB). The research was designed to assess the influence of HopaSuS recommendations and children's playing sport video games on physical activity, healthy behavior and body posture of children.

Considering that the target group of HopaSus research was children aged 11 to 15 years, parental approval was necessary for their involvement in the research. In this regard, participation of parents/guardians in the survey simultaneously meant their approval for the involvement of their child in the study.

Research consisted of an online survey about physical activity, healthy behavior and playing video games related habits of children. Survey is filled once, at the beginning of the research. HopaSuS recommendations are proposed to parents, teachers, coaches to be applied 45 days between initial and final testing. Testing considered the assessment of physical skills and postural status of the children. Assessment of physical skills was carried out through two identical sessions with an interval of 45 days between sessions. A single session involved the application of HopaSuS protocol - a set of five tests/challenges for the assessment of children's motorical aptitude (described in detail in the HopaSuS protocol). Assessment of the postural status is done using free smartphone application APECS mobile application (New Body Technology SAS, Grenoble, France) taking two photos of body posture.

### Subjects

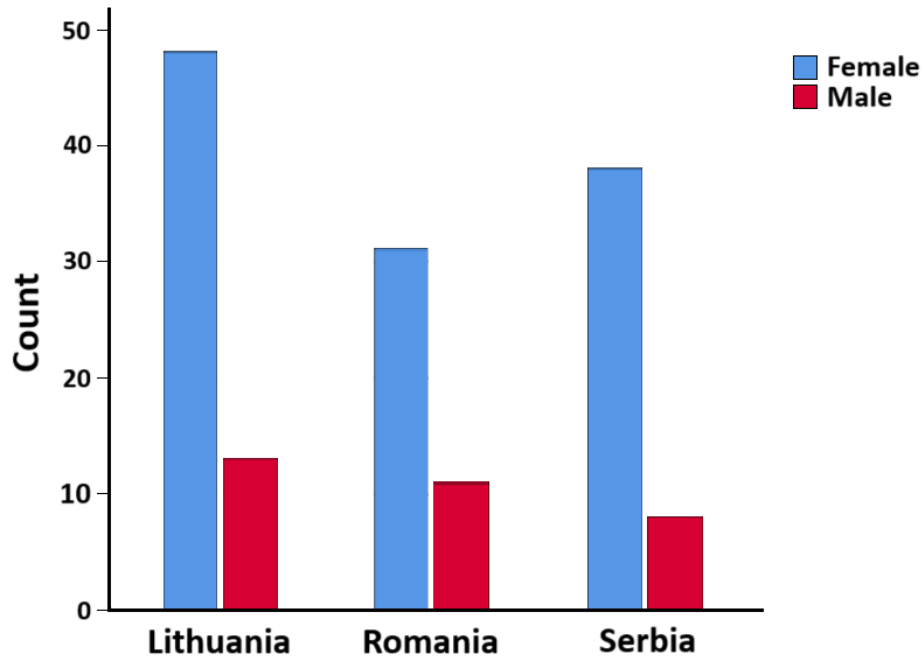
Subjects were classified in three groups: parents/guardians (hereinafter *parents*), children and coaches/TPE (hereinafter *sports teachers*).

#### *Parents*

The online survey about physical activity, healthy behavior and playing video games related habits of children filled out 148 parents (ROM, N = 42; LITH, N = 61; SRB, N = 45). Additionally, another 56 parents (12 from ROM, 24 from BUL, 5 from LITH and 15 from Serbia), who did not fill out the survey, gave their written consent for their child's participation in the research. However, only parents who participated in the survey are

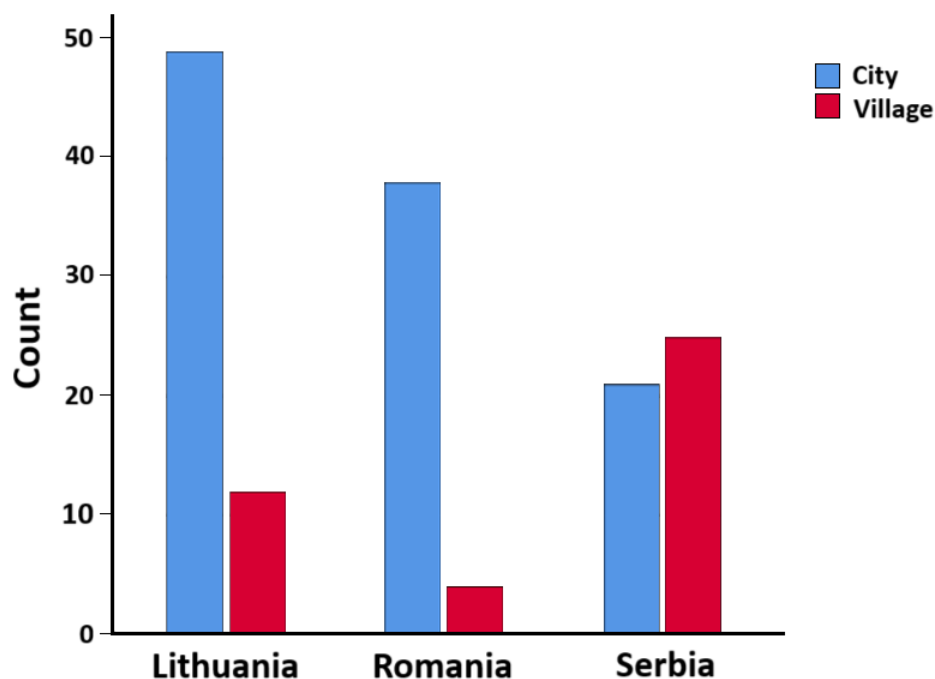
considered participants in the research, and further all the results of the research related to parents concern those parents who filled out the survey.

Based on survey's answers most of the parents from all three countries were female (Fig. 1).



*Fig. 1. Gender of involved parents.*

Parents and children from ROM and LITH mostly live in cities (ROM = 90.5 %, LITH = 80.3%), contrary to those from SRB, who mostly live in villages (54,3%) (Fig. 2).



*Fig. 2. Place of residence.*

### *Children*

Children's group was consisted of 204 boys and girls aged 11 to 15 years, divided in four subgroups: ROM (N = 54), BUL (N = 24), LITH (N = 66) and SRB (N = 60), mostly female (ROM = 52,3%, LITH = 57.4% and SRB = 84.8%) except for BUL, where the entire sample was made up of male subjects. Children were involved from schools or sports clubs.

### *Sports teachers*

The sample of sports teachers consisted mainly of physical education teachers, with the exceptions of the Serbian sample, which also included sports coaches. The Serbian sample consisted of 1 physical education teacher and 3 sports coaches (dance, artistic gymnastics and volleyball). Overall samples' structure is given in Table 1.

**Table 1.** *Sample's structure*

	No. of children	Years ( $X \pm SD$ )	No. of parents		No. of sports teachers
			M	F	
<b>ROM</b>	54	12.3 $\pm$ 1.5	11	31	5
<b>BUL</b>	24	13.8 $\pm$ 1.4	/	/	1
<b>LITH</b>	66	12.5 $\pm$ 1.4	13	48	2
<b>SRB</b>	60	13.0 $\pm$ 1.0	8	38	4

ROM – Romania, BUL – Bulgaria, LITH – Lithuania, SRB – Serbia, No. – number, X – mean, SD – standard deviation.

## RESULTS

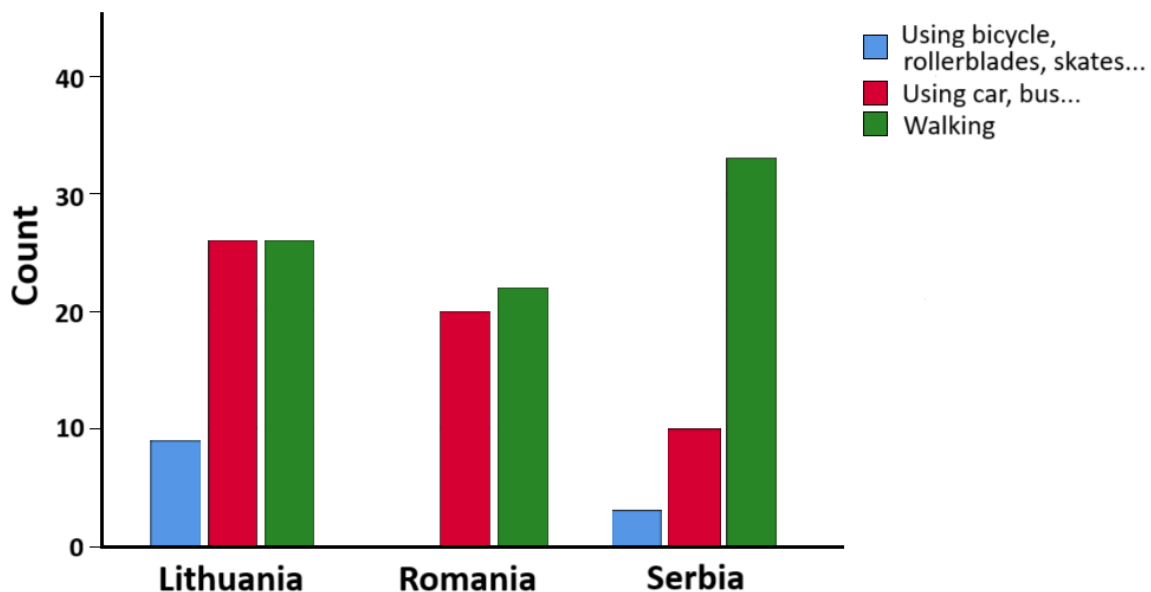
Healthy habits, physical skills and posture of children were evaluated in the research. The following are the results of the assessment.

### RESULTS OF SURVEY ON CHILDREN'S HABITS REGARDING PHYSICAL ACTIVITY AND PLAYING VIDEO GAMES

#### *Physical activity*

Children's health habits were assessed indirectly through a survey intended for parents. The survey collected information about the child's physical activity and habits related to playing video games. As previously mentioned, parents from Bulgaria did not fill out the online survey, but gave written consent for their children's participation in the research. For this reason, the report shows the results for the other three countries.

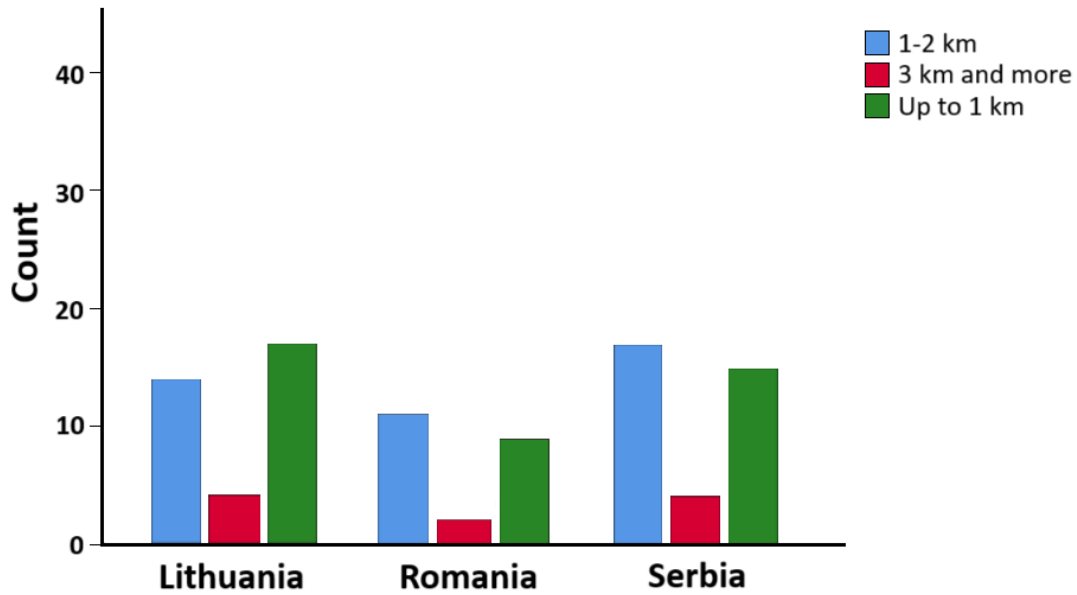
Fig. 3 shows the way children from Lithuania, Romania and Serbia go to school and back. Looking at the total sample, 54% of children walk, 38% use transport (car, bus, etc.), and 8% use bicycles, rollerblade, skate, etc. There are present significant differences between the way of transportation between children from different countries ( $\chi^2 = 15.65, p < 0.01$ ). Children from Romania don't use bicycles etc, while children from Serbia mostly walk to school.



*Fig. 3. Transportation to school*

Children who walk or use bicycles usually travel up to 2 km (89%) to school and back (Fig. 4). Romanian and Serbian children mostly travel from 1 to 2 km, and Lithuanian, up to

one kilometer. In all three countries there are the fewest children who travel more than 3 km.



*Fig. 4. Kilometers of transport.*

Differences between the subgroups (LITH, ROM and SRB) were shown in terms of whether the children train any sports outside of physical education classes ( $\chi^2 = 50.76, p < 0.001$ ). While in Lithuanian and Romanian samples the ratio is in favor of children who do not practice sports (LITH = 71%, ROM = 62%), the Serbian sample mostly consisted of children who practice some sport (96%, against 4% of children who do not practice sport, Fig. 5). As could be expected, children from Serbian sample practice sport more times a week (Fig. 6) than children from Lithuania and Romania ( $\chi^2 = 16.14, p < 0.01$ ).

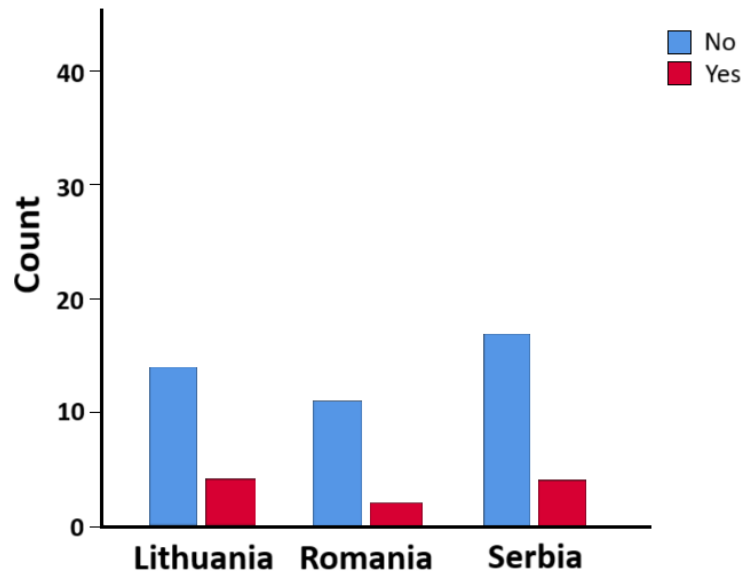


Fig. 5. Practicing sports.

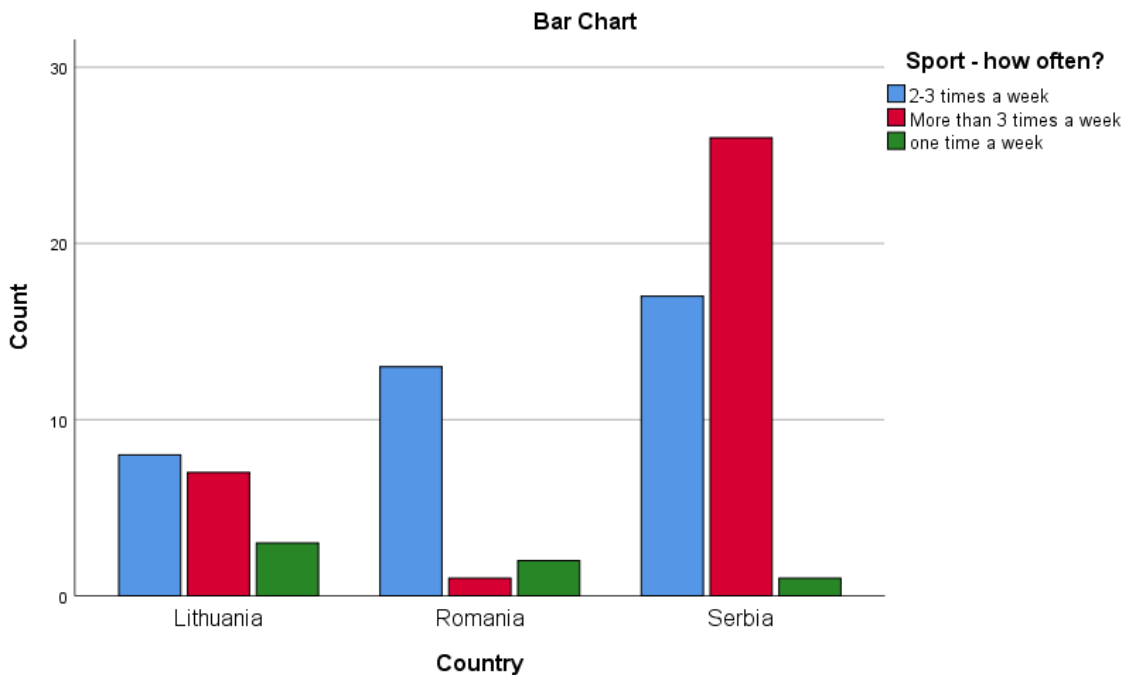
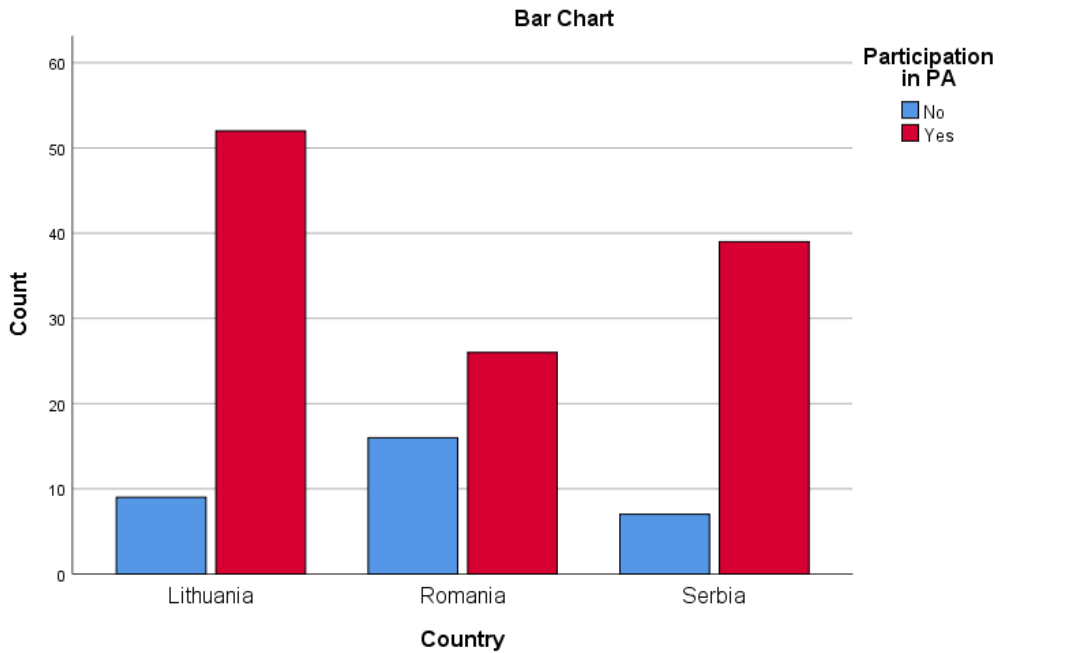


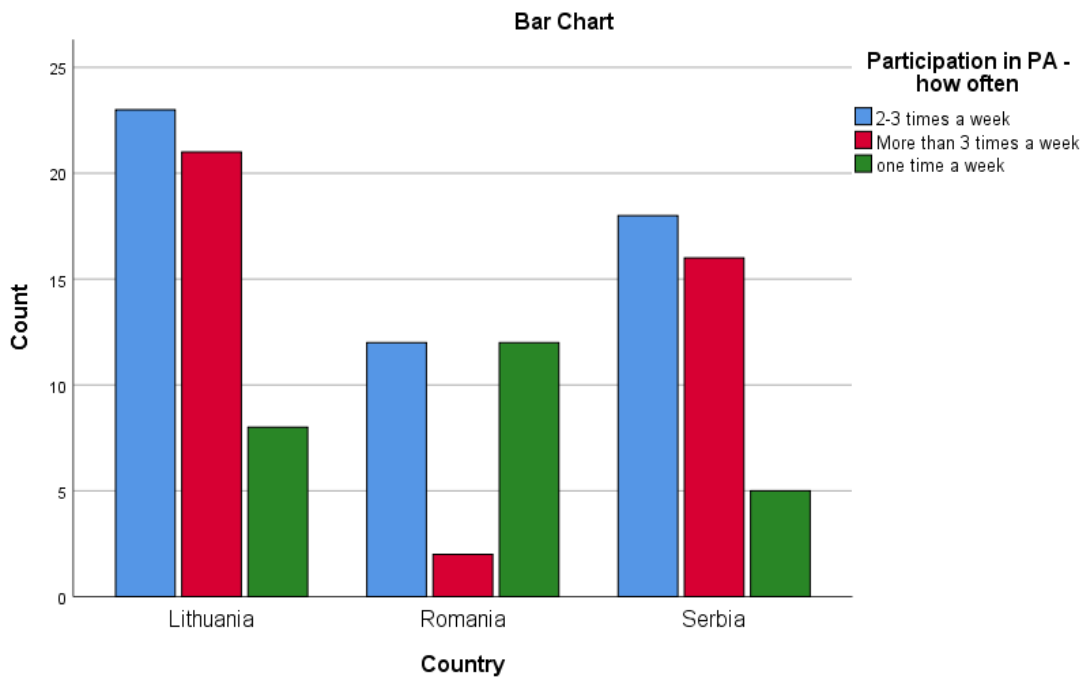
Fig. 6. How often children practice sports weekly.

Participation in physical activity (PA) outside the school is practiced by 79% of the total sample. By comparing the subgroups, a significant difference is observed (Fig. 7). The ratio between children who practice PA and those who do not is much higher in the Lithuanian and Serbian sample, compared to the Romanian one ( $\chi^2 = 9.58, p < 0.01$ ). While in the Romanian sample, 38% of children do not practice PA, in the Serbian and Lithuanian

samples, it is 15% each. Likewise, Lithuanian and Serbian sample practice PA mostly 2-3 times a week, then more than 3 times a week and at the end one time a week. (Fig. 8) Romanian sample practice PA mostly 1 time, and 2-3 times a week. More than 3 times a week practice only 5% of the sample.



**Fig. 7.** Participation in PA.



**Fig. 8.** How often children practice PA weekly.



### Playing video games

Based on parents' statements, 74% of the total sample of children play video games, with significant differences noted between children from Lithuania and Romania compared to children from Serbia (Fig. 9). Namely, results show that children from Lithuania and Romania play video games significantly more than children from Serbia ( $\chi^2 = 31.17, p < 0.001$ ). Unlike the LITH and ROM subgroups, the results of the survey indicate that in the SRB sample there is a higher percentage of children who do not play video games (54%) compared to those who play video games (46%).

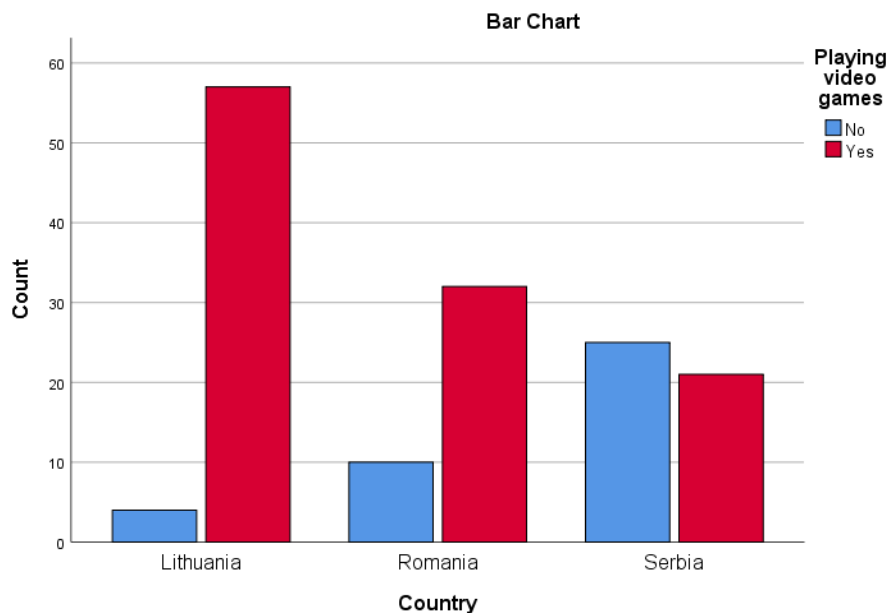
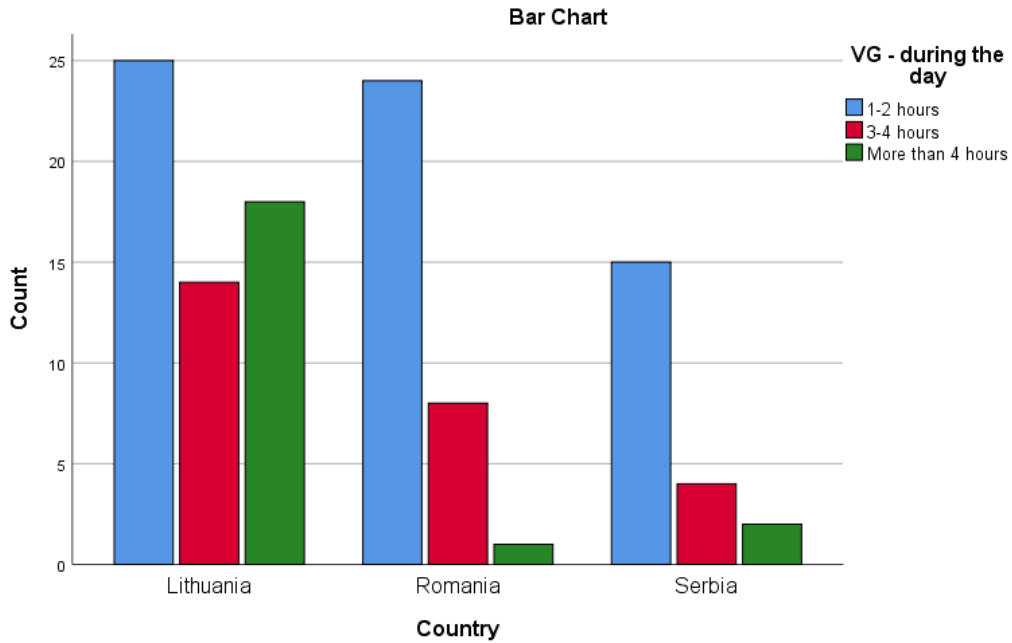


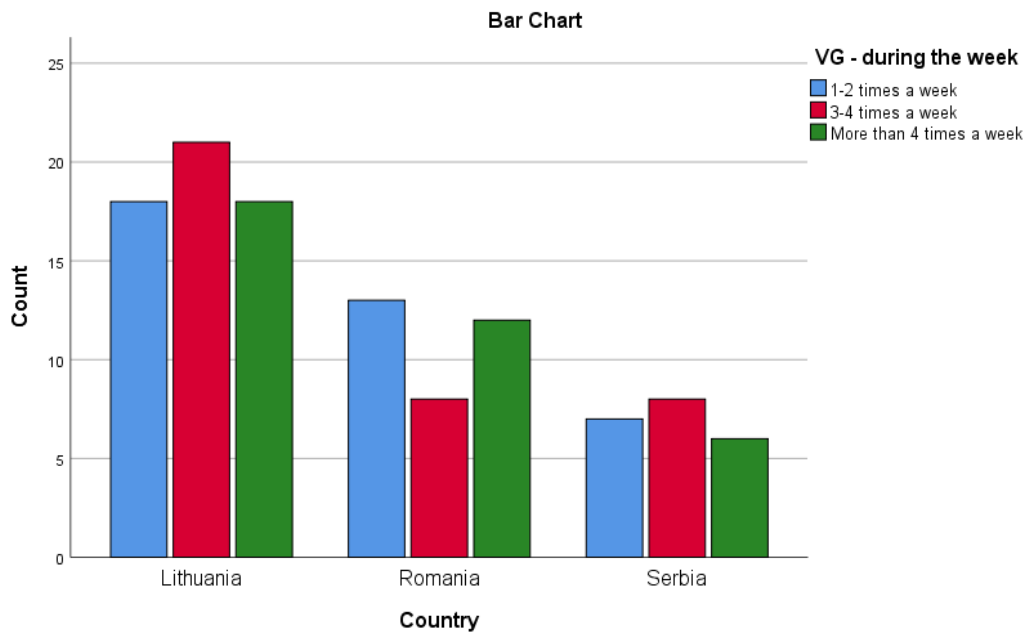
Fig. 9. Playing video games.

The following results refer only to children who play video games. Parents who stated that their children do not play video games, did not provide answers to the following statements.

Observing the time of playing video games during the day (Fig. 10), it can be seen that children mostly spend 1-2 hours playing video games, while children from Lithuania spend more than 4 hours significantly more than children from Romania and Serbia ( $\chi^2 = 14.30, p < 0.01$ ).



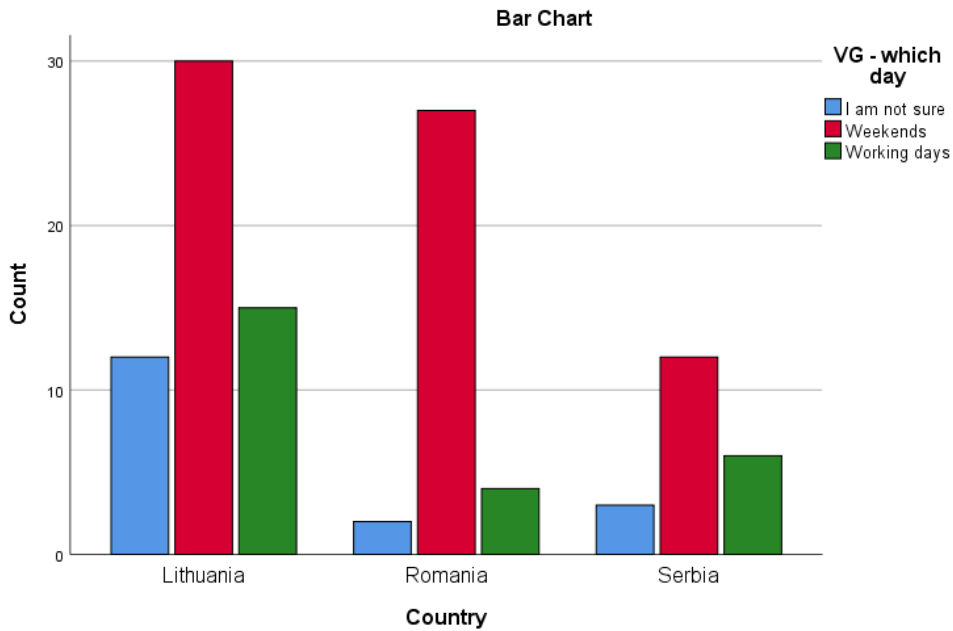
**Fig. 10.** Playing video games during the day.



**Fig. 11.** Playing video games during the week.

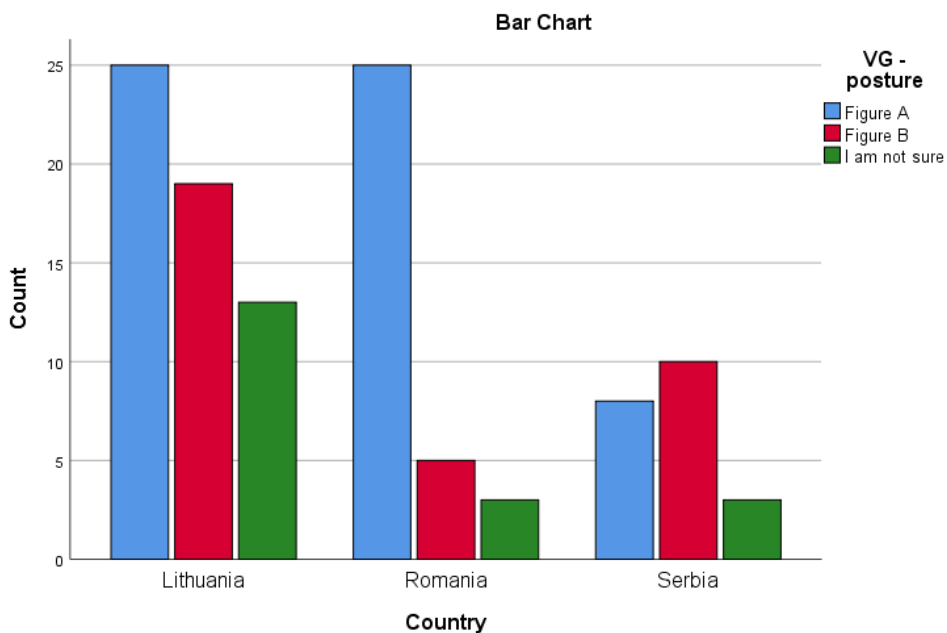
Lithuanian and Serbian children in highest percentage play VG 3-4 times a week, contrary to ROM subgroup who mostly spend 1-2 days, or more than 4 days a week (Fig. 11). However, regarding how often children play video games a week, no significant differences

between subgroups were noted ( $\chi^2 = 1.82, p > 0.10$ ). Most children play video games on weekends and such a trend is present in all three subgroups (Fig. 12)



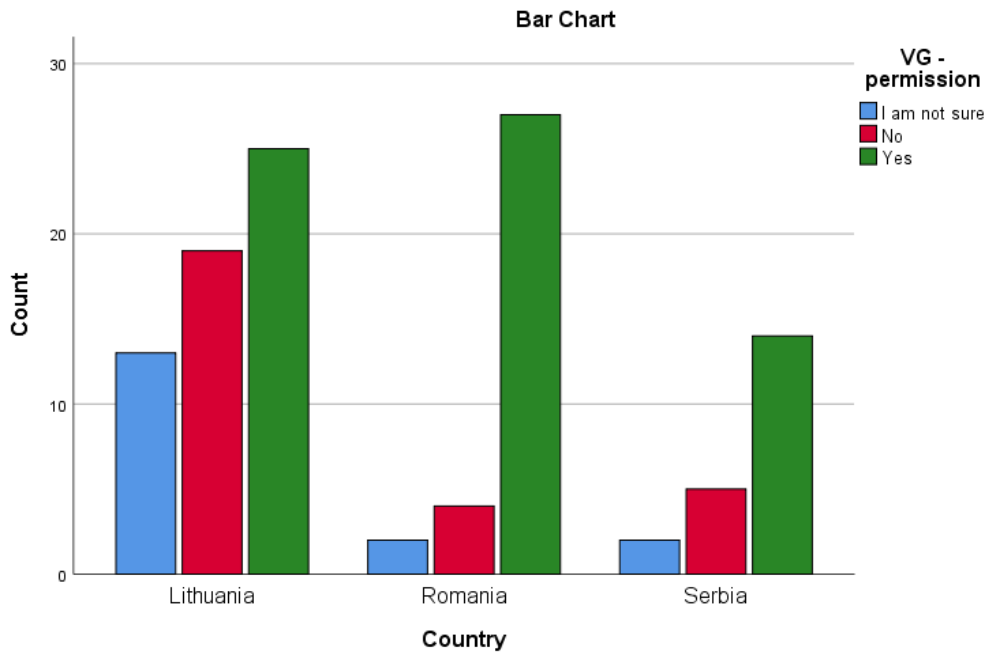
**Fig. 12.** Days of playing video games.

When it comes to the way children sit while playing video games (Fig. 13), there are significant differences in parents' statements between subgroups ( $\chi^2 = 12.18, p < 0.05$ ). The highest percentage of parents from Romania and Lithuania believe that their children sit correctly, while the majority of parents from Serbia believe the opposite.



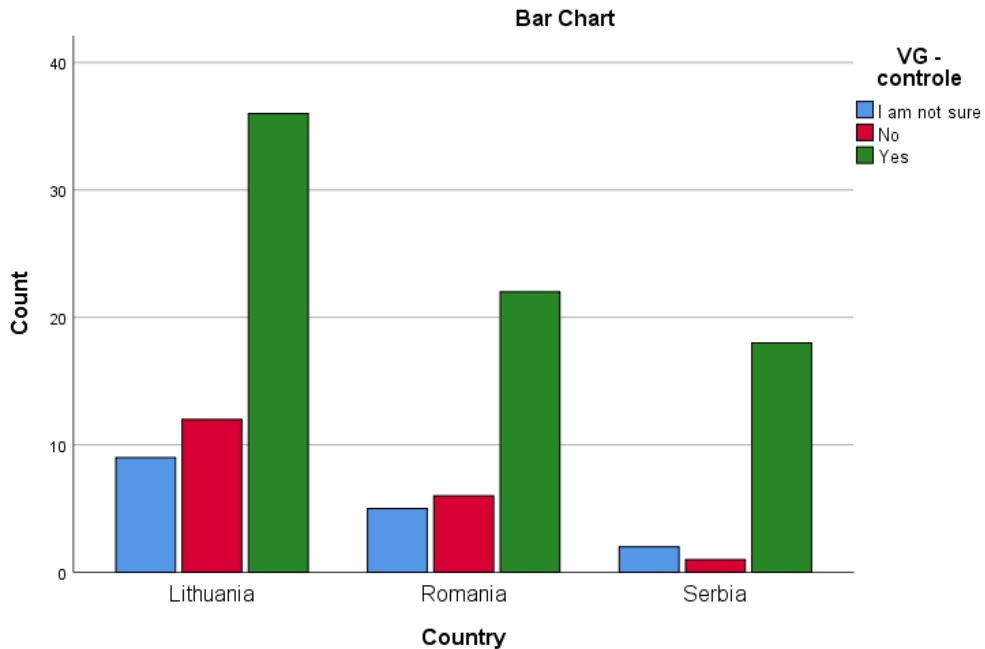
**Fig. 13.** Posture of children while playing video games.

Significant differences between the subgroups were also noted regarding the extent to which parents pay attention to what time of day the child will play video games ( $\chi^2 = 13.43$ ,  $p < 0.01$ ). In all three subgroups, the highest percentage of parents take care of it (Fig. 14), which is especially pronounced among parents from Romania (LITH = 44%, ROM = 82%, SRB = 67%), however, among Lithuanian parents, the percentage of those who do not take care, or not sure is also high (56%).



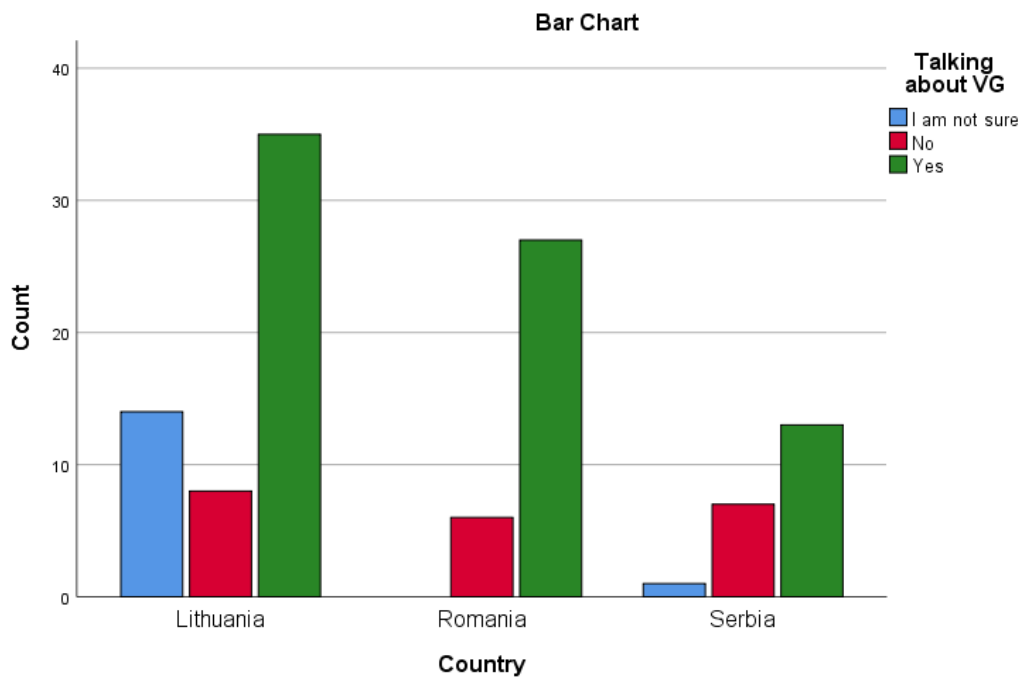
**Fig. 14.** Parental permission to play video games.

Significant differences between subgroups are not noted in terms of how well parents are able to control time of their children's video game playing ( $\chi^2 = 4.00$ ,  $p > 0.10$ ). Parents from all 3 subgroups stated in the highest percentage that they can control this topic (Fig. 15).



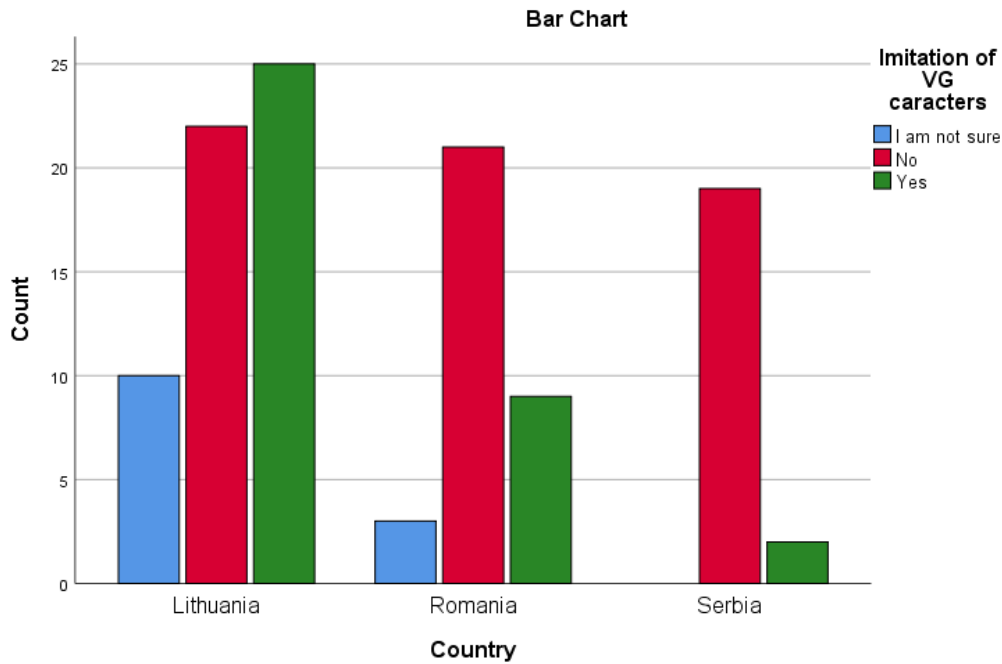
**Fig. 15.** Parental control of playing video games.

Most children from all three countries like to talk with their parents about video games (LITH = 61%, ROM = 82%, SRB = 62%; Fig. 16), however, there is noted a significant difference between subgroups in terms that Romanian subgroup has significantly lower percent of those who do not like to talk/not sure, relative to other two subgroups ( $\chi^2 = 15.24$ ,  $p < 0.01$ ).



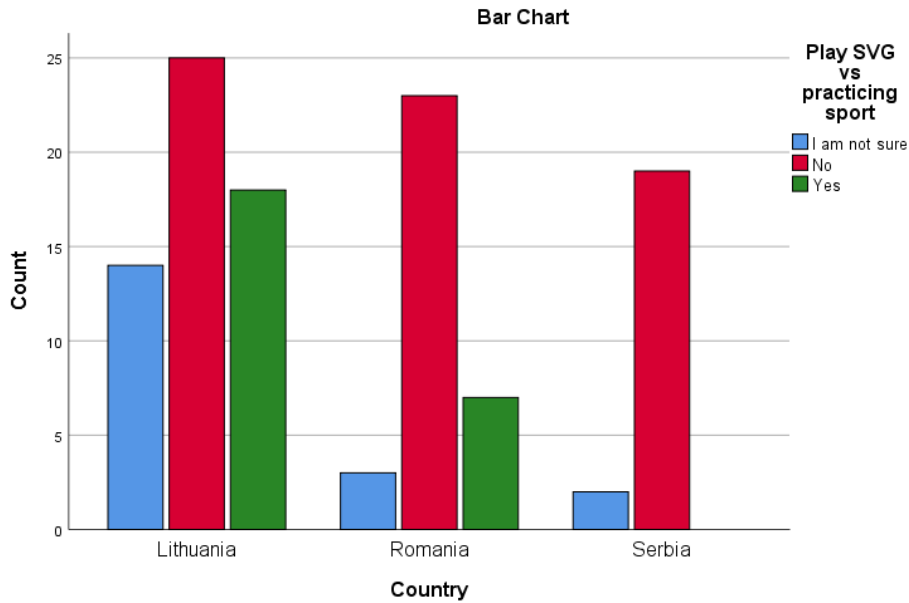
**Fig. 16.** Talking about video games.

Imitation of video games characters mostly is present at Lithuanian sample, while children from Romania and especially from Serbia usually do not use to do that ( $\chi^2 = 18.18, p < 0.01$ ).



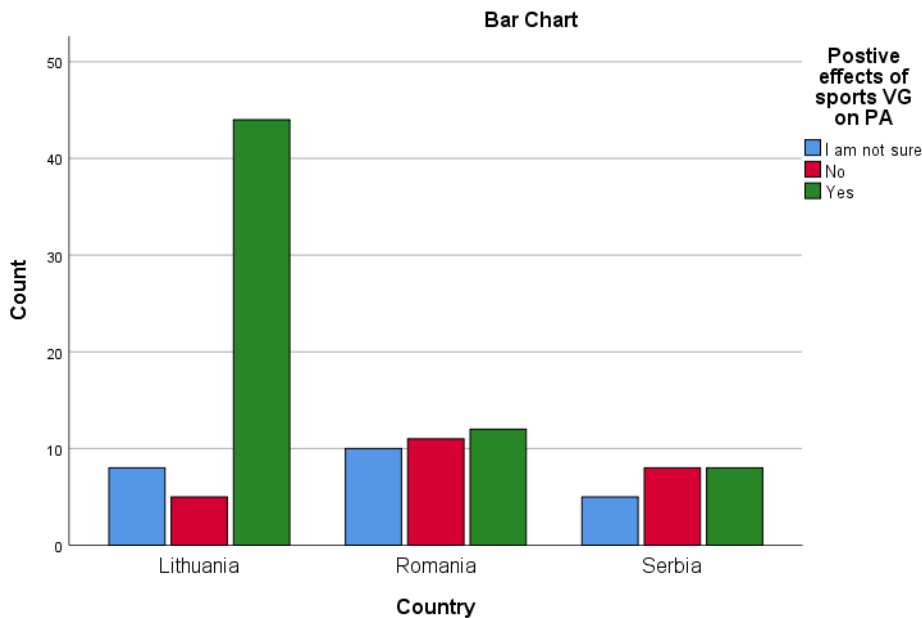
**Fig. 17.** Imitation of video games characters.

Results of research show that children from all three countries prefer to practicing sports rather than play sports video games (Fig. 18), however, Serbian sample significantly less like to play sports video games (91%) than children from Lithuania (44%) and Romania (70%), just like Romanian children do it less than Lithuanian one ( $\chi^2 = 16.83, p < 0.01$ ).



**Fig. 18.** Play sports video games versus practicing sports.

The last statement on which the parents had to give their attitude was that playing video games with sports content, in which the child's task would be a certain physical exercise in order to achieve the best possible result in the game (higher number of points, moving to another level, etc.), could positively improve a child's physical activity level. Based on the results (Fig. 19) Lithuanian parents have significantly different attitudes about the positive effects of playing video games than parents from Romania and Serbia ( $\chi^2 = 19.63, p < 0.01$ ). 77% of Lithuanian parents think positively, related to 38% of Romanian and 38% of Serbian.



**Fig. 19.** Positive effects of playing sports video games on the physical activity level of children.

## **Resume of the results of survey on children's habits regarding physical activity and playing video games**

Looking at the results of the HopaSus survey, it can be seen that the Romanian and Lithuanian subsamples were made up mostly of children from the city, in contrast to the Serbian one, which mostly consisted of children from the countryside. Given that the headquarters of the Lithuanian and Romanian partners are in the capitals of their countries, and that the Serbian organization is from a smaller town in West Serbia, this information is not surprising. The SDCS sample also included children from the rural area (Platicevo village), and given that Sabac is a relatively small town, children from the countryside often attend school in the city.

Further, the results of the survey shows that mostly mothers took part in the research and there was no difference between the countries participating in the project. Such findings could be explained by the fact that these are school-age children and that it is most likely that mothers take on the role of taking care of their curricular and extracurricular activities or were more open than fathers to participate in the survey. When it comes to the gender of the children, looking at the total sample, it is noticeable that there is a significant difference between Bulgarian (and the other three subsamples), which consisted of only male children. However, since Bulgarian parents did not participate in the survey, only the results for the Lithuanian, Romanian and Serbian subsamples will be discussed. In this regard, in terms of percentage, slightly more girls than boys participated in the research, but given that no statistically significant differences by gender were recorded, it can be considered that the total sample included an equal number of both male and female children. The same applies to subsamples by country.

Based on parents' responses, children in all three countries mostly go to and from school by walking, and then by using car, bus etc, as a way to transport. There is a noticeable difference between children from Serbia, who use walking significantly more than the other two ways of transportation (cars, buses... or bicycles, rollerblades...), in contrast to children from Lithuania and Romania, who use, with a large percentage, transportation by car and bus. Also, a subsample of children from Romania does not use bicycles, rollerblades and skates to go to and from school at all. As mentioned before, these are children who mostly live in the capital, where there is heavy traffic, and it is assumed that parents prefer to drive their children to school for safety reasons. In contrast to the Romanian subsample, in the Lithuanian one it was recorded that children use bicycles, rollerblades and skates as a means of transport. However, the Lithuanian subsample included a higher percentage of children from the countryside than the Romanian one, so it can be concluded that bicycles, rollerblades, etc. are mostly used by children from the countryside and that, accordingly, there are no differences in the mode of transport between these two subsamples. The reason why in the Serbian subsample by far the largest number of children goes by walking can be explained in a similar way. Given that they live in a small town, schools are not far from the



place of residence, traffic is also not as busy as in big cities, so it is not difficult for children to walk to school and back.

Differences between the subsamples were recorded in terms of whether the children train any sports in favor of Serbian children. However, it can be easily explained by the fact that the Serbian subsample included children from sports clubs in addition to schools. Further, children from Romania are engaged in physical activity beside regular physical education classes and sports training significantly less than children from Lithuania and Serbia. Unlike children from the other two countries, children from Romania, even if they practice additional physical activities, usually do it only once a week (LITH and SER mostly 2-3 times a week, and then more than 3 times a week). If these results are compared with the answers of parents regarding children playing video games, it is noticeable that parents from Romania are also less likely to allow their children to spend more time playing video games, and it could be concluded that parents from Romania value the time spent studying more. However, this is just an assumption. The survey did not monitor the children's success at school so that such a conclusion could be drawn with certainty. Thus, we do not have an adequate explanation for such data and it could be the subject of further studies.

Regarding playing video games survey results show that in Lithuanian and Romanian subsamples there are significantly more children who play video games compared to those who do not play. In Serbian subsample results show the opposite - there are more non-players than players. Such results can be connected with the fact that children from Serbia are more involved in sports and also used to practicing some kind of physical activity beside regular physical education classes. Also, children from Serbia who use to play video games do not prefer it in relation to playing sports. Seems that children from Serbian subsample prefer to be physically active than virtually. Furthermore, children from all three countries usually spend 1-2 hours per day playing VG, while in Lithuanian's subsample there are significantly more children that play VG for more than 4 hours, than in the other two countries. Children from Lithuania also like talking about video games and imitating VG's characters the most out of all three subsamples. It is less pronounced with children from Romania, while children from Serbia generally do not like to imitate characters more than to imitate.

If we pay attention to the parents' answers regarding what they think about whether playing sports video games can have a positive effect in terms of increasing children's physical activity, we can see a significantly more positive attitude of parents from Lithuania on this issue than parents from Romania and Serbia. Based on this, it could be concluded that the attitude of parents about the benefits/harms of playing video games influences how much time their children will spend playing VG. It is evident that Lithuanian parents have a more positive attitude towards this issue, and consequently allow their children to play video games more than parents from other two countries. On the other hand, parents from Romania are especially careful when their children play VG's during the day, and accordingly their children spend a maximum of 1-2 hours playing VG's. In addition, Serbian parents have no positive attitude about the effect of playing video games on a child's physical activity so it is possible that they direct their children more towards sports and engagement in some forms of physical activity.

When it comes to the way children sit while playing video games, Romania and Lithuania parents mostly declare that their children sit correctly, while the majority of parents from Serbia believe the opposite. We emphasize that this result does not mean that children from Serbia have a worse body posture than children from Romania and Lithuania, but only represents the attitude of the parents about this issue. These findings will be further interpreted in the part of the report that refers to the assessment of the postural status of the children who participated in the research.

Based on the overall results of the survey and their interpretation, the following dominant finding could be highlighted: *the extent to which children will practice sports and use the potential of playing sports video games depends largely on the attitude of parents about these issues.*

### RESULTS OF THE PHYSICAL SKILL'S ASSESSMENT

Statistical data analysis of physical skills assessment was performed using non-parametric statistical procedures. The Wilcoxon Signed Rank test was used to compare the results at the initial and final testing for each subsample (country), and the Kruskal-Wallis test was used to compare the results between countries at the initial and at the final testing. In the case of significant differences, additional Mann-Whitney U tests were applied to determine which subsamples differed. Following are the results of physical skill assessments.

Tables 2 and Table 3 represent results of comparison initial (PRE) and final (POST) testing by country (Romania, ROM; Bulgaria, BUL; Lithuania, LITH and Serbia, SRB), as well as comparison between countries (OVERALL). By looking at the results of all five tests, it can be seen that each subsample had a certain improvement in performance after applying the HopaSus recommendations. All subsamples show better results at the final testing at the *plastic bags juggling* test (ROM,  $z = -2.89$ ,  $p < 0.01$ ; BUL,  $z = -2.83$ ,  $p < 0.01$ ; LITH,  $z = -3.40$ ,  $p < 0.05$ ; SRB,  $z = -4.69$ ,  $p < 0.001$ ). Children from ROM and BUL had performance improvement also at the *taking the T-shirt off* (ROM,  $z = -2.46$ ,  $p < 0.05$ , BUL,  $z = -2.24$ ,  $p < 0.05$ ), as well as SRB at *skipping the rope* ( $z = -5.08$ ,  $p < 0.001$ ). Finally, BUL and SRB subsamples at the final testing show better average results (AVRG) of performing all five tests (BUL,  $z = -3.20$ ,  $p < 0.01$ ; SRB,  $z = -5.35$ ,  $p < 0.001$ ).

**Table 2.** Country results of the motor skills assessment at the initial (PRE) and final (POST) testing using HopaSus tests skipping the rope (SR), plastic bags juggling (PB), and taking the T-shirt off (TS), as well as comparison between countries PRE and POST.

		SR		PB		TS	
		X ± SD	z	X ± SD	z	X ± SD	z
ROM	PRE	1.3 ± 0.6	-0.81	1.6 ± 0.6	-2.89**	1.6 ± 0.8	-2.46*
	POST	1.4 ± 0.7		1.9 ± 0.3		1.9 ± 0.3	
BUL	PRE	0.7 ± 0.8	-1.41	0.7 ± 0.5	-2.83**	1.2 ± 0.7	-2.24*
	POST	0.8 ± 0.8		1.1 ± 0.7		1.4 ± 0.7	
LITH	PRE	1.5 ± 0.6	-0.97	1.4 ± 0.7	-3.40*	1.8 ± 0.6	-1.41

	POST	1.4 ± 0.8		1.8 ± 0.4		1.9 ± 0.5	
<b>SRB</b>	PRE	1.3 ± 0.7	-5.08***	1.6 ± 0.5	-4.69***	1.8 ± 0.4	-1.54
	POST	1.8 ± 0.4		2.0 ± 0.1		1.9 ± 0.4	
<b>OVERALL</b>	PRE	1.3 ± 0.7	14.14**	1.4 ± 0.7	30.48***	1.7 ± 0.6	18.83***
	POST	1.5 ± 0.7	29.13***	1.8 ± 0.5	52.39***	1.8 ± 0.5	18.47***

X ± SD - mean ± standard deviation, z - result of comparison. \* - differences significant on the level  $p < 0.05$ , \*\* - differences significant on the level  $p < 0.01$ , \*\*\* - differences significant on the level  $p < 0.001$ .

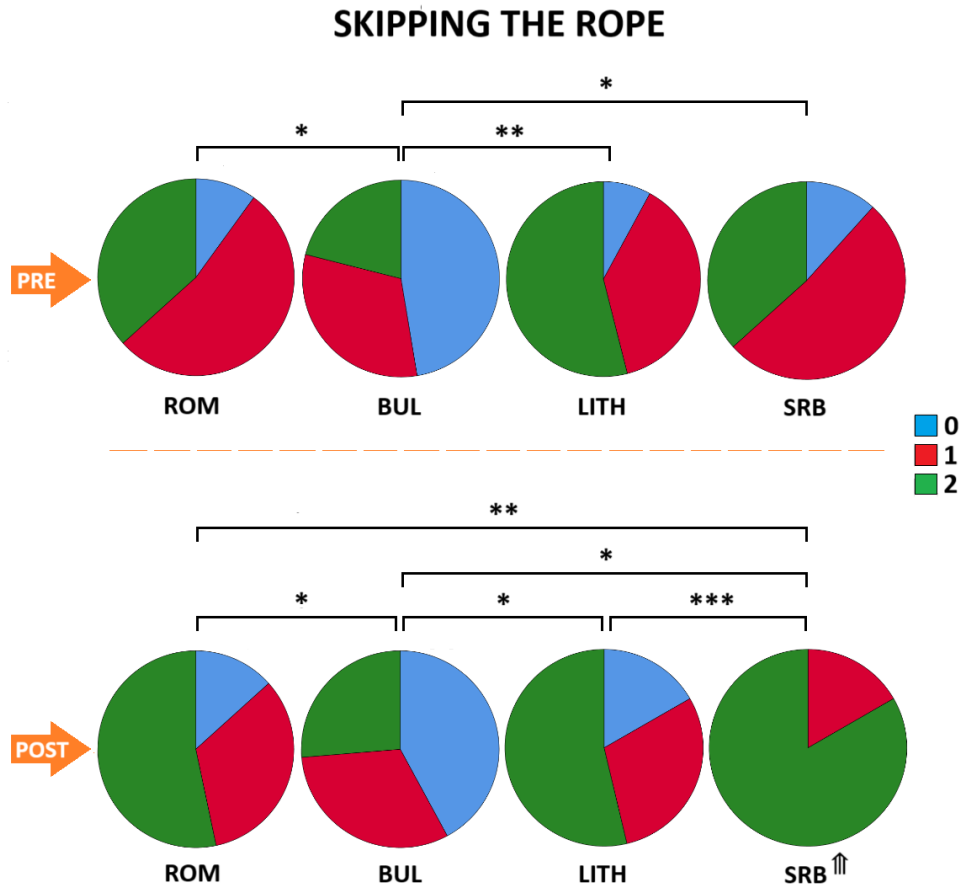
**Table 3.** Country results of the motor skills assessment at the initial (PRE) and final (POST) testing using HopaSus tests dribbling the ball (DB) and throwing the ball behind the back (TB), as well as average results of all 5 HopaSus tests (AVRG) and comparison between countries PRE and POST.

		<b>DB</b>		<b>TB</b>		<b>AVRG</b>	
		<b>X ± SD</b>	<b>z</b>	<b>X ± SD</b>	<b>z</b>	<b>X ± SD</b>	<b>z</b>
<b>ROM</b>	PRE	1.3 ± 0.8	-1.83	1.0 ± 0.8	-0.94	1.5 ± 0.3	-0.57
	POST	1.7 ± 0.6		1.2 ± 0.8		1.5 ± 0.4	
<b>BUL</b>	PRE	1.4 ± 0.6	-1.73	0.7 ± 0.7	-1.73	1.0 ± 0.3	-3.20**
	POST	1.6 ± 0.5		0.9 ± 0.7		1.2 ± 0.3	
<b>LITH</b>	PRE	1.2 ± 0.8	-1.16	1.0 ± 0.9	-1.96	1.4 ± 0.4	-1.55
	POST	1.3 ± 0.8		1.2 ± 0.8		1.5 ± 0.4	
<b>SRB</b>	PRE	1.4 ± 0.7	-3.89***	1.4 ± 0.7	-1.51	1.5 ± 0.3	-5.35***
	POST	1.8 ± 0.4		1.6 ± 0.6		1.8 ± 0.2	
<b>OVERALL</b>	PRE	1.8 ± 0.7	3.40	1.1 ± 0.8	15.12**	1.4 ± 0.4	30.69***
	POST	1.6 ± 0.7	17.33**	1.3 ± 0.7	22.92***	1.6 ± 0.4	50.32***

X ± SD - mean ± standard deviation, z - result of comparison. \* - differences significant on the level  $p < 0.05$ , \*\* - differences significant on the level  $p < 0.01$ , \*\*\* - differences significant on the level  $p < 0.001$ .

By comparing the results between the subsamples at initial and at the final testing (see Table 2 and Table 3, **OVERALL** → PRE and POST) findings indicate that there were differences in the performance of the SR, PB, TS and TB tests as well as in AVRG at the initial testing. At the final testing differences between subsamples were notable regarding all monitored variables. Further statistical analysis determined which subsamples differed, both on individual tests and on the average score.

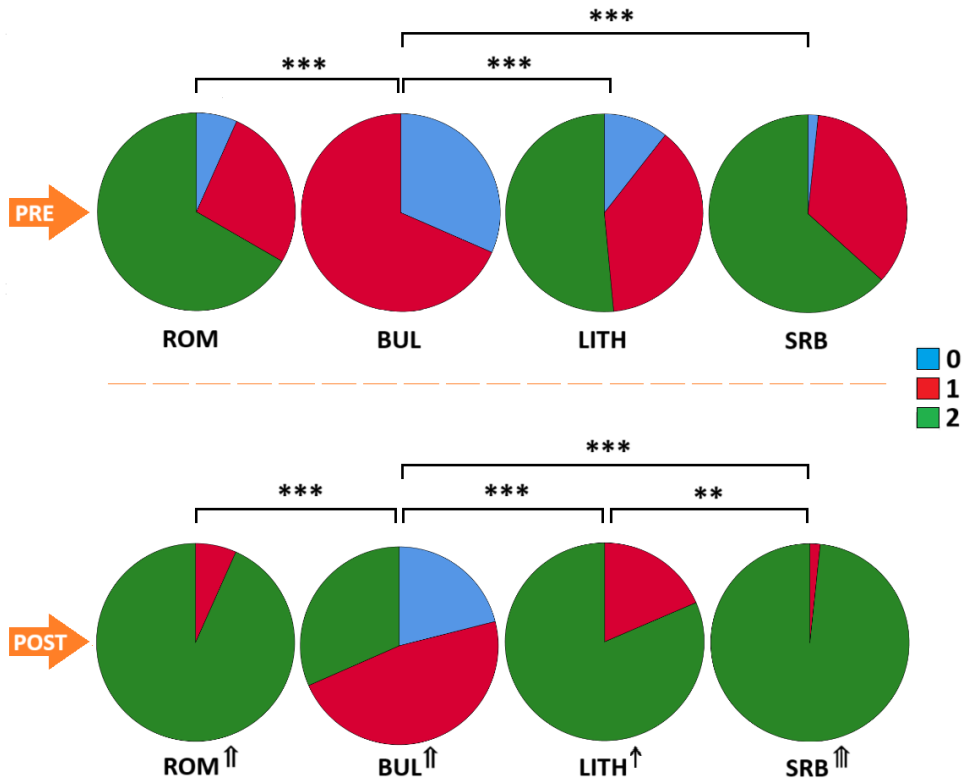
Fig. 20. represents results of comparison between subsamples at the initial and at the final testing using *skipping the rope* HopaSus test (see **SR** → **OVERALL** → PRE and POST). As presented in the Table 2 at the initial testing ROM, LITH and SRB subsamples differ from BUL one ( $z = -14.14$ ,  $p < 0.01$ ) in terms that children from those countries showed better results than children from Bulgaria (ROM,  $z = -2.37$ ,  $p < 0.05$ ; LITH,  $z = -3.46$ ,  $p < 0.01$ ; SRB,  $z = -2.58$ ,  $p < 0.05$ ). At the final testing larger differences with a higher level of significance were noted ( $z = -29.13$ ,  $p < 0.001$ ). At the final testing, Children from Romania and Lithuania still had better performance than children from Bulgaria, but without statistical progress between PRE and POST. After implementing the recommendations Serbian children showed progress in performing the SR test so showed better results than children from Romania ( $z = -3.20$ ,  $p < 0.01$ ), Lithuania ( $z = -3.68$ ,  $p < 0.001$ ) and Bulgaria ( $z = -5.18$ ,  $p < 0.001$ ).



**Fig. 20.** Results of comparison of subsamples' (ROM, BUL, LITH, SRB) performance at the initial (PRE) and at the final (POST) testing using the *skipping the rope* HopaSus test. Symbols \* indicate values where are present a significant differences between subsamples, \* - differences significant at the level  $p < 0.05$ , \*\* - differences significant at the level  $p < 0.01$ , \*\*\* - differences significant at the level  $p < 0.001$ . Symbol “↑” indicate differences in the results of the same subsample PRE and POST at the  $p < 0.001$ . (Note that “0” indicates the lowest, and “2” the best score).

When performing the *plastic bags juggling* test (see Table 2, **PB** → **OVERALL** → PRE and POST) at the initial testing, similar results were recorded, as for the SR test ( $z = -30.48$ ,  $p < 0.001$ ). Children from ROM, LITH and SRB showed better results than children from Bulgaria (ROM,  $z = -4.46$   $p < 0.001$ ; LITH,  $z = -4.05$ ,  $p < 0.001$ ; SRB,  $z = -5.33$ ,  $p < 0.001$ ). After implementing recommendations (at the final testing) all four subsamples showed improvement in performing the test, with children from Romania, Lithuania and Serbia showing better results than children from Bulgaria (ROM,  $z = -4.57$   $p < 0.001$ ; LITH,  $z = -4.29$   $p < 0.001$ ; SRB  $z = -6.61$   $p < 0.001$ ). Also, children from Serbia had a better performance than children from Bulgaria ( $z = -6.61$   $p < 0.001$ ) and Lithuania ( $z = -3.03$   $p < 0.01$ ).

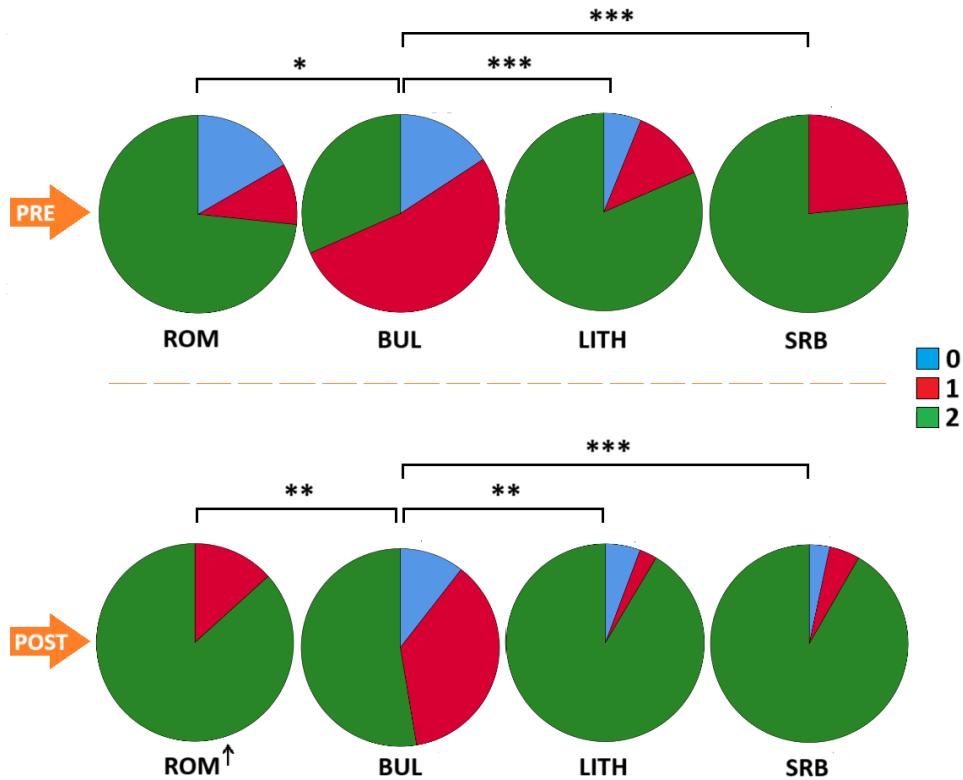
## PLASTIC BAGS JUGGLING



**Fig. 21.** Results of comparison of subsamples' (ROM, BUL, LITH, SRB) performance at the initial (PRE) and at the final (POST) testing using the *plastic bags juggling* HopaSus test. \* - differences significant at the level  $p < 0.05$ , \*\* - differences significant at the level  $p < 0.01$ , \*\*\* - differences significant at the level  $p < 0.001$ . Arrows indicate differences in the results of the same subsample PRE and POST, ↑ -  $p < 0.05$ , ↑↑ -  $p < 0.01$ , and ↑↑↑ -  $p < 0.001$ . (Note that "0" indicates the lowest, and "2" the best score).

By looking at the Fig. 23, which represents results of comparison of subsamples performance at the initial (PRE) and at the final (POST) testing using the *taking the T-shirt off* HopaSus test it can be seen that PRE, as well as POST Romanian, Lithuanian and Serbia children showed better performance than Bulgarian one (PRE: ROM,  $z = -2.27$   $p < 0.05$ ; LITH,  $z = -4.01$ ,  $p < 0.001$ ; SRB,  $z = -3.85$ ,  $p < 0.001$  and POST: ROM,  $z = -2.69$   $p < 0.05$ ; LITH,  $z = -3.07$ ,  $p < 0.01$ ; SRB,  $z = -3.78$ ,  $p < 0.001$ ). Furthermore, after implementation of HopaSus recommendation (POST vs. PRE), the Romanian sample showed statistically significant improvement in performing the test ( $z = -2.46$ ,  $p < 0.05$ ).

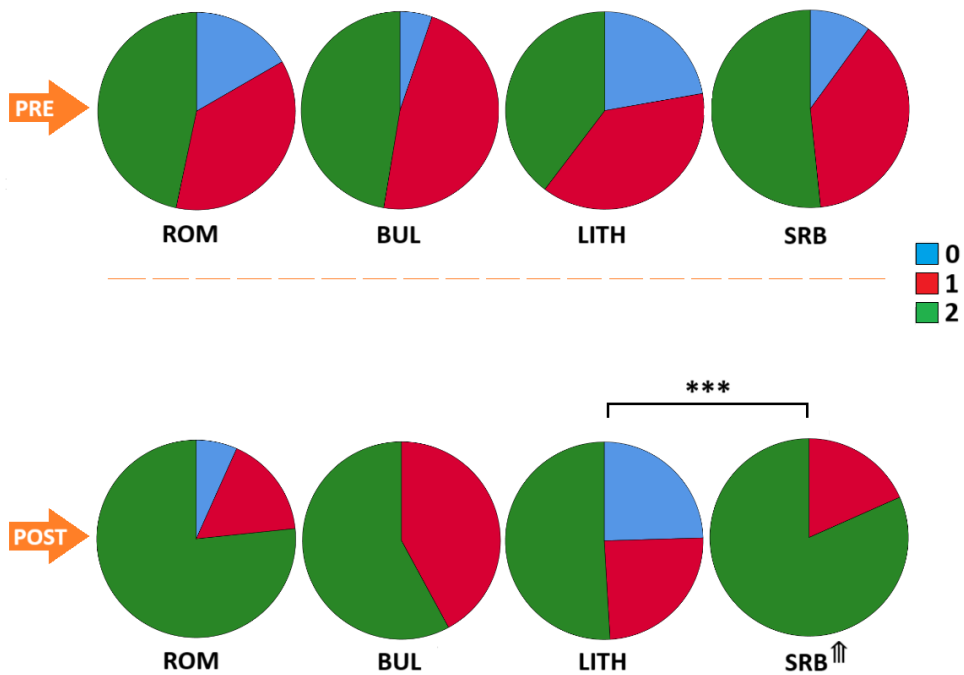
## TAKING THE T-SHIRT OFF



**Fig. 22.** Results of comparison of subsamples' (ROM, BUL, LITH, SRB) performance at the initial (PRE) and at the final (POST) testing using *taking the T-shirt off* HopaSus test. \* - differences significant at the level  $p < 0.05$ , \*\* - differences significant at the level  $p < 0.01$ , \*\*\* - differences significant at the level  $p < 0.001$ . Arrow (↑) indicates the difference of the results of the same subsample PRE and POST at the level  $p < 0.05$ . (Note that "0" indicates the lowest, and "2" the best score).

Using the *dribbling the ball* test at the initial testing between subsamples there were no significant differences recorded ( $z = -3.40$ ,  $p > 0.05$ ). At the final testing Serbian subsample showed better results than the Lithuanian one, as a consequence of statistically significant improvement in performing the test POST vs. PRE of Serbian children ( $z = -3.89$ ,  $p < 0.001$ ).

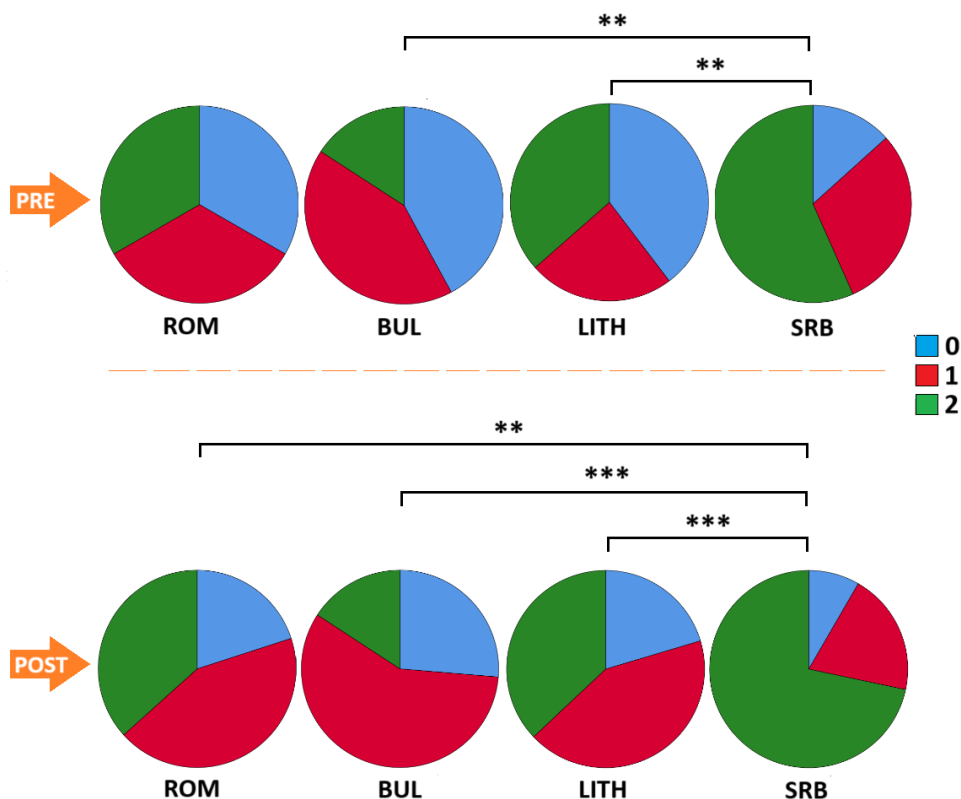
## DRIBBLING THE BALL



**Fig. 23.** Results of comparison of subsamples' (ROM, BUL, LITH, SRB) performance at the initial (PRE) and at the final (POST) testing using *dribbling the ball* HopaSus test. \*\*\* - differences between subsamples significant at the level  $p < 0.001$ . Arrow symbol (⤴) indicates the difference of the results of the same subsample PRE and POST at the level  $p < 0.001$ . (Note that “0” indicates the lowest, and “2” the best score).

Comparisons in performing *throwing the ball behind the back* test (Fig. 24) showed that at the initial testing Serbian children had better results than Bulgarian ( $z = -3.39$ ,  $p < 0.01$ ) and Lithuanian children ( $z = -2.98$ ,  $p < 0.01$ ). After implementing of HopaSus recommendation, at the final testing Serbian children showed better performance than Bulgarian ( $z = -4.18$ ,  $p < 0.01$ ) and Lithuanian ( $z = -3.61$ ,  $p < 0.001$ ), as well as Romanian one ( $z = -3.16$ ,  $p < 0.01$ ), even though none of the subsamples did not statistically improve the performance after the period of implementation of recommendations (POST vs. PRE).

## THROWING THE BALL BEHIND THE BACK



**Fig. 24.** Results of comparison of subsamples' (ROM, BUL, LITH, SRB) performance at the initial (PRE) and at the final (POST) testing using *throwing the ball behind the back* HopaSus test. Symbols \*\*, and \*\*\* indicate differences between subsamples significant at the level  $p < 0.01$  and  $p < 0.001$ , respectively. (Note that "0" indicates the lowest, and "2" the best score).

### *Determining the level of physical skills*

Based on the sum of the results of all five tests (total score) at the initial testing, which was a minimum of 3 and a maximum of 10, the norms for determining the level of physical skills were formed. A total score between the 25th and 75th percentiles, was considered average. Below and above the average were considered results below the 25th and above the 95th percentile, respectively. Table 4 represents the norms of physical skills performance.

**Table 4.** Norms of HopaSus test battery based on the results of the research.

NORMS			
HOPASUS test battery total score	Below Average	Average	Above Average
	<5	5-8	9-10



**Table 5.** Distribution of results of physical skills assessment by subsamples in relation to categories (below average, average and above average).

	Below average		Average		Above average	
	PRE	POST	PRE	POST	PRE	POST
<b>ROM</b>	10%	3%	73%	47%	17%	50%
<b>BUL</b>	53%	16%	47%	79%	/	5%
<b>LITH</b>	17%	9%	60%	57%	23%	34%
<b>SRB</b>	5%	/	72%	25%	18%	75%

### Resume of the results of the physical skills assessment

Summarizing results of the physical skills assessment it can be generally concluded that HopaSus recommendations had a positive impact on physical skills of children from all four countries that participated in the research. It is notable that after the period of implementation of recommendations children show better performance in all five physical challenges (POST vs. PRE), even though statistically significant differences between initial and final testing for throwing *the ball behind the back* test were not recorded.

At the initial testing children from Romania, Lithuania and Bulgaria showed better results than Bulgarian ones mainly in all tests except in the *dribbling the ball*, (where subsamples did not differ from each other) as well as regarding the average score of all five tests. Serbians also had better results than Lithuanians regarding *throwing the ball behind the back* test. These results suggest that children from different subsamples were not on the same physical skills level when research was started. It is obvious that children from Bulgaria had a lower level of physical skills than children from other three countries.

After implantation of HopaSus recommendations (final testing), greater differences between the subsamples were recorded. Still, children from Romania, Lithuania and Bulgaria showed better results in all tests except *dribbling the ball*. Further, Serbian children had better performance than Romanian and Lithuanian at *skipping the rope* and *throwing the ball behind the back*, and also than Lithuanian children at *dribbling the ball*. Regarding average score at the final testing Serbian children showed better performance than Romanian, Bulgarian and Lithuanian children, and Romanian and Lithuanian were better in tests' performing than Bulgarian. Such results, as will be explained further, do not necessarily mean that the HopaSus recommendations had the least impact on children from Bulgaria, it is just in accordance with the fact that before the recommendations were implemented, children from Bulgaria were at a lower level of physical skills than children from the other three countries.

If the results of the comparison between the initial and final testing of the same subsample are reviewed it can be seen that children from Serbia improved significantly in the performance of *skipping the rope, plastic bags juggling, dribbling the ball* and at the average score. Romanian children improve their performance at *plastic bags juggling and taking the T-shirt off*, Lithuanian at *plastic bags juggling*, and Bulgarian at *plastic bags juggling, taking the T-shirt off*, as well as at the average score of all five HopaSus tests. These results suggest that HopaSus recommendations had a positive impact on children's physical skills which varied from subsample to subsample.

Generally observing, the greatest progress after the implementation of the HopaSus recommendations was noted in children from Serbia and Bulgaria. Since the HopaSus recommendations for parents and coaches were based on recommendations, not on an obligation, and since we did not have the possibility to control the extent to which they were implemented, we are not able to draw clear conclusions regarding the origin of differences in performance between children of different subsamples. As far as the Bulgarian sample is concerned, the explanation is not difficult to give considering that the sample consisted of children with a lower level of physical skills, so a targeted physical exercise program could have had a positive impact on their performance to a greater extent than is the case with the Romanian and Lithuanian subsamples.

When it comes to the Serbian's subsample, if we look back at the results of the survey that was part of this research, we will first notice that the sample consisted of children who were largely involved in sports (or have positive attitude about physical activity in general), and we can assume that they have developed a desire to prove themselves, to compete etc., by overcoming their own limits and that in this regard they were more motivated to apply the recommendations consistently and with dedication. Second, the results of the survey may indicate that parents from Serbia, as they already have a high positive attitude towards sports/physical activity and their impact on children's health, possibly approached the implementation of the recommendations more seriously than other parents.

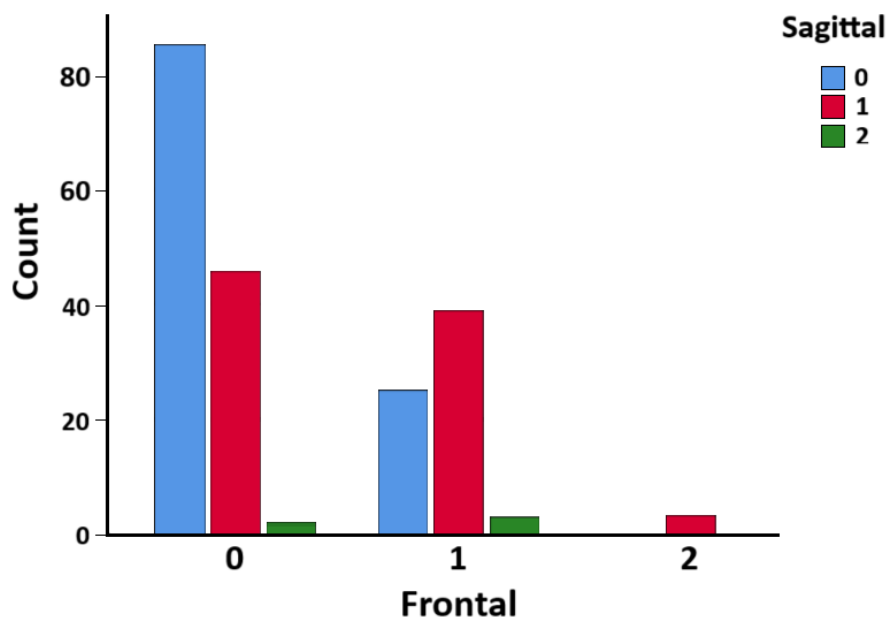
Finally, as a result of research the norms for determining the level of physical skills were formed. Based on HopaSus test battery performance children's physical skills could be classified as below average, average or above average. Based on the overall results of the physical skills assessment with a large degree of confidence we can generally conclude that:

- *HopaSus recommendations could have a positive impact on physical skills of children ages from 11 to 15, regardless of geographical origin.*
- *Children who are distinguished by the qualities necessary to achieve sports achievements (resilience, motivation, commitment, etc.) will show better results in the assessment of physical skills using the HopaSus test battery, as well as the improvement of physical skills after recommendations implementations.*
- *Parents' approach to sports/physical activity have a large impact on their children's achievement results.*

## RESULTS OF THE POSTURAL ASSESSMENT

Postural status assessment was performed from the front and from the side view, frequencies and contingency tables as well as the Kruskal-Wallis test were used for comparison of the results between countries (ROM, BUL, LITH, and SRB). In the case of significant differences between subsamples, additional Mann-Whitney U tests were applied.

Fig. 25 represents the contingency table of total sample results obtained from the front and from the side view. Results show that Most children (54%) showed good posture (grade 0), minor deviations (grade 1) had 43% and major deviations (grade 2) were present in 3% of the total sample.



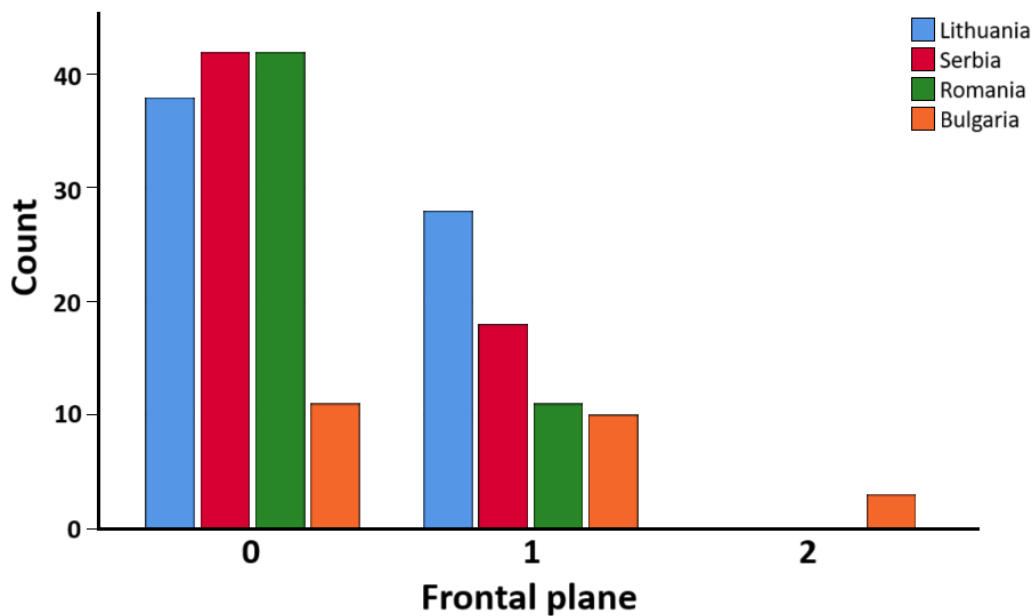
**Fig. 25.** Contingency table of total sample results of postural status assessment obtained from the front (frontal) and from the side (sagittal) view. Note that “0” indicates the best score - good posture, absence of postural disorders, “1” - minor deviations, the presence up to two postural disorders and “2” the lower score, major deviations - presence of more than two postural disorders.

Analyzing data by country results showed that children involved in research from Romania, Lithuania and Serbia mostly have good posture from the *front view* (ROM = 79%, LITH = 58% and SRB = 70%). Minor deviations were present in 21% of Romanian children, 42% of Lithuanian and 30% of Serbian children while major deviations have not been recorded for these subsamples. Contrary, postural status of Bulgarian subsample were as follows: grade 0 - 46%, grade 1 - 42% and grade 2 - 13% of children.

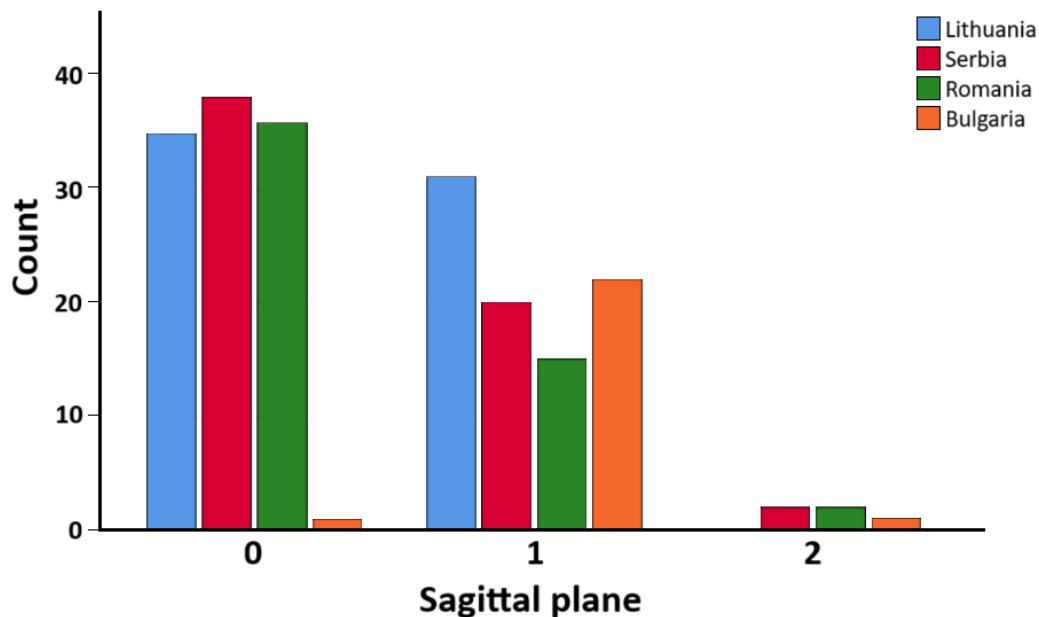
Assessing from the *side view* results showed that children from ROM, LITH and SRB also have mostly good posture (ROM = 68%, LITH = 53% and SRB = 63%). Minor deviations were present in 28% of Romanian, 47% of Lithuanian, and 33% of Serbian children, while major postural disorders were present in 4% of Romanian and 3% of Serbian children.

Lithuanian children had no high level of postural disorders from the side view. Results for BUL subsample indicate that there are most of the children with minor postural deviations (92%). Good posture from the side view as well as major postural disorders were present in 4% of children each.

Analyzing obtained results significant differences in body posture between the subsamples had shown (front view,  $z = 12.39$ ,  $p < 0.01$ ; side view,  $z = 28.31$ ,  $p < 0.001$ ). From the front view (Fig. 26) statistically better results show a ROM subsample compared to the Bulgarian one ( $z = 3.16$ ,  $p < 0.05$ ). From the side view (Fig. 27) greater differences were found in terms that ROM, LITH and SRB subsamples show better results than BUL (ROM,  $z = -4.86$ ,  $p < 0.01$ ; LITH,  $z = -4.29$ ,  $p < 0.01$ ; SRB,  $z = -4.67$ ,  $p < 0.01$ ).



**Fig. 26.** Frequencies of the results of postural status assessment by country, assessed in the frontal plane (from the front). "0" - good posture, "1" - minor disorder, and "2" major deviations of good posture. \* - differences between countries at the level  $p < 0.05$ .



**Fig. 27.** Frequencies of the results of postural status assessment by country assessed in the sagittal plane (from the side). “0” - good posture, “1” - minor disorder, and “2” major deviations of good posture.

### **Resume of the results regarding postural assessment**

Results of the assessment of postural status of children from four European countries indicate that most children have good posture. Minor disorders are present in lower percentages, and there are also some children with major deviations of good (normal) posture.

Even statistical analysis did not reveal differences between ROM, LITH and SRB subsamples, considering the ratio of good posture versus the presence of minor postural disorder, it is observed that it is high in favor of normal posture of children from Romania and Serbia, and slightly lower in children from Lithuania than ROM and SRB children. Children from Bulgaria generally had worse posture than children from other three countries, especially in the sagittal plane (side view) where only 4% of children had normal posture and 92% had minor postural disorder. However, it is encouraging that this disorder stage is known to be correctable with physical exercises so we assume that with a programmed physical activity aimed at correcting body posture it could be improved. Contrary, it is worrying that 13% of BUL subsample (as well as 4% of ROM and 3% of SRB) had postural disorders that are not easily correctable by physical activity.

As in recent decades there has been a trend of increasing postural disorders in children, it can be concluded that the results of this research are in the line with the results of previous studies that dealt with the assessment of body posture in children and youth. Also, the results of current research indicate that Bulgarian children generally have worse posture than children from Romania, Lithuania and Serbia. Still, interpreting the results it

should be borne in mind that it refers primarily to the children who participated in the study and that we should be careful about generalizing the findings to the entire population of children aged 11-15 years.

As could be noticed, the distribution of the results has a similar trend in all four subsamples (the most are children with good body posture, followed by a smaller number of children with the first stage of the disorder and the least are those with greater deviations from normal body posture). The distribution is only disturbed in children from Bulgaria, and that is in the sagittal plane where the largest number of children have some kind of deviation. However, we cannot generalize this data to the entire population of children from Bulgaria aged 11-15 as the subsample consisted of only 24 children, mostly aged 13-15 years. As adolescents they are in a transition stage of life with a dramatical physical, psychological and emotional changes which reflect on their behavior, change of mood, motivation, interests, etc. Also, this is the period of life when youngsters tend to act in some way just to draw attention, or to fit into society. Also, in this period of life, a role model is of great importance for children, someone with whom they feel the need to identify. Sometimes it could be positive, but often negative role models. And what does it have to do with body posture?

Posture is much more than just engaging our muscles and bones at static and dynamic conditions. It involves our perception, emotions and the environment we are in (Dunk, Callaghan, & McGill, 2005). Therefore, there are many factors that can affect body posture, from the time of day when the assessment is made, to fatigue, bad mood, impaired physical and mental health (e.g. depression, anxiety, stress) etc. With all this in mind, if we relate these findings to the results of the posture assessment of the Bulgarian subsample, we can better explain the findings of this research. For example, it was enough for one child to want to draw attention by disobeying the instructions on taking an adequate position for assessment with bad posture, for the other children to follow him/her. Another child may have been emotionally affected because of the break up of a love relationship so that felt as “everything fell apart” to him/her. Another one maybe spent the whole night on social networks, so came to the testing sleepless and tired. And so on and so forth.

Since during the postural assessment we were not able to control all the factors affecting body posture, when interpreting results we have to take it into account and suggest that in future research, better control of the research inclusion criteria as well as a larger sample, should be provided.

Now, it is interesting to look back at the results of the survey and parent’s attitude on sitting their children while playing video games. Just to remind, Romanian and Lithuanian parents mostly declare that their children sit correctly, while the majority of parents from Serbia believe the opposite. Results of postural assessment did not show differences in postural status of Serbian children vs. Romanian and Lithuanian, just opposite - most of the Serbian children had good posture. Furthermore, Serbian children had also slightly higher ratio “normal vs. minor disorders” than Lithuanian children, so results of the survey regarding this issue could refer to it that Serbian/Lithuanian parents their attitude that playing video games, at the very least, cannot have (or “have”, as in the case of LITH parents) a positive effect on the physical status of children, project as a behavior of their children

while playing video games. Also, these findings may be the result of parents' prejudices, lack of knowledge or setting high/low criteria etc.

Based on the overall results of the postural assessment we can generally conclude that:

- *Children that were involved in the research have good posture, or have minor disorders that can be corrected by physical exercises.*
- *During the postural assessment it has to consider children's psychophysical health, as well as the environmental conditions.*

## **CONCLUSION**

Research that had the main goal to assess the influence of HopaSuS recommendations and children's playing sport video games on physical activity, healthy behavior and body posture of children actively involves a wide range of participants: children, parents, coaches and teachers of physical education from four European countries. All of them contributed to the conclusion that can be drawn at the end of the research:

*HopaSus protocol can be a useful tool both for collecting data (of children's habits regarding physical activity and playing video games, of physical skills level and of postural status of children) and for a development of physical skills, as well as for strengthening the parent-child-sport coach relationship.*

## **Refference**

Dunk, N. M., Callaghan, J. P., & McGill, S. M. (2005). Lumbar spine movement patterns during prolonged sitting differentiate low back pain developers from matched asymptomatic controls. *Work*, 24(2), 181-188.